

DOCUMENT RESUME

ED 069 013

24

EA 004 203

AUTHOR Wynn, Richard
TITLE Unconventional Methods and Materials for Preparing Educational Administrators. ERIC/CEM-UCEA Series on Administrator Preparation. ERIC/CEM State-of-the-Knowledge Series, Number Fifteen. UCEA Monograph Series, Number Two.
INSTITUTION Oregon Univ., Eugene. ERIC Clearinghouse on Educational Management.; University Council for Educational Administration, Columbus, Ohio.
SPONS AGENCY National Center for Educational Research and Development (DHEW/OE), Washington, D.C.
BUREAU NO BR-8-0353
PUB DATE 72
CONTRACT OEC-0-8-080353-3514
NOTE 77p.
AVAILABLE FROM University Council for Educational Administration, 29 West Woodruff Avenue, Columbus, Ohio 43210. (\$2.00, Quantity Discounts)
EDRS PRICE MF-\$0.65 HC-\$3.29
DESCRIPTORS *Administrator Education; *Educational Administration; Educational Innovation; Educational Methods; Game Theory; Independent Study; *Instructional Innovation; *Instructional Materials; Laboratory Training; Management Education; Management Games; Professional Training; Simulated Environment; Simulation; *Teaching Methods; Techniques

ABSTRACT

In this monograph, the author describes the variety of new and innovative instructional methods and materials being used to prepare educational administrators. Because the subject is new and the nomenclature surrounding it imprecise, the author defines his terms. An outline of the history of unconventional instructional methods and the rationale for their development are presented. The author focuses on those methods in current use, such as laboratory training, case methods, simulation, games, and independent study. An extensive bibliography is included. (Author/DN)

ED 069013

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

Unconventional Methods and Materials for Preparing Educational Administrators

Richard Wynn

1972

EA 004 203

Commissioned by
ERIC Clearinghouse on
Educational Management

Published by
University Council for
Educational Administration

**ERIC/CEM—UCEA SERIES ON
ADMINISTRATOR PREPARATION**

Under the editorship of

PHILIP K. PIELE, Director

ERIC Clearinghouse
on Educational Management
University of Oregon

and

JACK CULBERTSON, Executive Director

University Council
for Educational Administration
The Ohio State University

The ERIC Clearinghouse on Educational Management operates under contract with the Office of Education of the United States Department of Health, Education, and Welfare. This publication was prepared pursuant to that contract. Contractors undertaking such projects under government sponsorship are encouraged to express freely their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official Office of Education position or policy.

Library of Congress Catalog Number: 72-86747
ERIC/CEM Accession Number: EA 004 203

ERIC/CEM State-of-the-Knowledge Series, Number Fifteen
UCEA Monograph Series, Number Two

Manuscript edited by Stuart C. Smith

Printed in the United States of America
Interstate Printers and Publishers, Inc.
19 North Jackson
Danville, Illinois 61832

TITLES IN THIS SERIES

1. **Preparing Educational Leaders: A Review of Recent Literature**,
by Robin H. Farquhar and Philip K. Piele
2. **Unconventional Methods and Materials for Preparing Educational
Administrators**, by Richard Wynn
3. **Emergent Practices in the Continuing Education of School
Administrators**, by Frank W. Lutz and Reynolds Ferrante
4. **Training-in-Common for Educational, Business, and Public
Administrators**, by Erwin Miklos
5. **New Approaches to Recruitment and Selection of Educational
Administrators**, by Robert T. Stout
6. **The Preparation of School Administrators in Quantitative
Analysis**, by James E. Bruno
7. **The Use of Computers in Administrator Preparation**, by E.
Wailand Bessent and Philip K. Piele
8. **Innovative Strategies in Field Experiences for Preparing Adminis-
trators**, by Peter P. Horoschak and Joseph M. Cronin

Copies, at \$2.00 each, can be purchased from the University
Council for Educational Administration, 29 West Woodruff
Avenue, Columbus, Ohio 43210. Quantity discounts as
follows: 2 to 24 copies, \$1.80 each; 25 or more copies,
\$1.60 each.

ERIC/CEM

The Educational Resources Information Center (ERIC) is a national information system operated by the United States Office of Education. ERIC serves the educational community by disseminating educational research results and other resource information that can be used in developing more effective educational programs.

The ERIC Clearinghouse on Educational Management, one of eighteen such units in the system, was established at the University of Oregon in 1966. The Clearinghouse and its seventeen companion units process research reports and journal articles for announcement in ERIC's index and abstract bulletins.

Research reports are announced in *Research in Education (RIE)*, available in many libraries and by subscription for \$21 a year from the United States Government Printing Office, Washington, D.C. 20402. Most of the documents listed in *RIE* can be purchased through the ERIC Document Reproduction Service, operated by Leasco Information Products, Inc.

Journal articles are announced in *Current Index to Journals in Education. CIJE* is also available in many libraries and can be ordered for \$39 a year from CCM Information Corporation, 866 Third Avenue, Room 1126, New York, New York 10022. Annual and semiannual cumulations can be ordered separately.

Besides processing documents and journal articles, the Clearinghouse has another major function—information analysis and synthesis. The Clearinghouse prepares bibliographies, literature reviews, state-of-the-knowledge papers, and other interpretive research studies on topics in its area.

UCEA

The mission of the University Council for Educational Administration is to improve the preparation of administrative personnel in education. Its membership consists of major universities in the United States and Canada. UCEA's central staff works with and through scholars in member universities to create new standards and practices in administrator preparation and to disseminate the results to interested institutions.

UCEA's interest in the professional preparation of educational administrators includes both continuing education and resident, preservice programs. Interinstitutional cooperation and communication are basic tools used in development activities; both administrators and professors participate in projects.

The Council's efforts currently are divided into six areas: developing and testing strategies for improving administrative and leadership practices in school systems; encouraging an effective flow of leaders into preparatory programs and posts of educational administration; advancing research and its dissemination; providing information and ideas helpful to those in universities responsible for designing preparatory programs; integrating and improving preparatory programs in specific areas of administration; and developing and evaluating the Monroe City URBSIM simulation and support materials.

Contents

FOREWORD	vii
1. INTRODUCTION	1
Scope and Purpose	2
Definition of Terms	3
2. HISTORY AND RATIONALE	7
Early Initiative of NCPEA	7
Impetus of CPEA	8
Rapid Developmental Work of the 1960s	9
3. CURRENT PRACTICE	14
Laboratory Training	14
Case Method	25
Simulation	31
Games	38
Independent Study	44
4. PROBLEMS AND PROSPECTS	48
Current Problems	48
Future Trends	59
BIBLIOGRAPHY	61
ACKNOWLEDGMENTS	70

Foreword

During the last decade, programs to prepare educational administrators have undergone considerable change. Growing specialization in the field of educational administration resulting from new knowledge production (for example, operations research) is one reason for the program change. Another is the continuing search for more effective patterns of field experience, instructional method, and content in preparatory programs.

Because of the varied changes achieved in preparation in different universities, those interested in designing or updating programs today are faced with a greater number of options than was the case ten years ago. A major purpose of this monograph series is to shed light on the various options now available to those interested in administrator preparation. A second purpose is to advance general understanding of developments in preparation during the past decade. The series is directed to professors, students, and administrators interested in acquiring information on various aspects of preparation.

Each author in the series has been asked to define the parameters of his subject, review and analyze recent pertinent literature and research, describe promising new practices emerging in actual training programs across the country, and identify knowledge gaps and project future developments. The papers in the series were planned and developed cooperatively by the ERIC Clearinghouse on Educational Management and the University Council for Educational Administration. The editors of the series hope that the monographs will prove valuable to those interested in understanding and assessing recent and projected developments in preparation.

In this monograph, the second in the series, Richard Wynn describes the variety of new and innovative instructional methods and materials being used to prepare educational administrators. He reports that in recent years remarkable progress has been made in the development of unconventional instructional techniques, including laboratory training, case method, simulation, games, and independent study.

Dr. Wynn is a professor of education and chairman of the Department of Educational Administration at the University of Pittsburgh, a post he has held since 1967. Dr. Wynn possesses an extensive and diversified background in education, having served as a classroom teacher, school superintendent, board of education member, researcher, and professor. He received his bachelor's degree in 1939 from Bucknell University, his master's degree in 1946 from Bucknell University, and his doctor's degree in 1952 from Teachers College, Columbia University.

The author of numerous publications, Dr. Wynn has written extensively about such subjects as educational technology, human relations, organization, and staffing. Among his recent works are the seventh edition of *American Education*, coauthored with Chris DeYoung, and a monograph, *Instructional Technology and the School Administrator*, coauthored with others and published by the American Association of School Administrators.

PHILIP K. PIELE
JACK CULBERTSON

1

Introduction

Where in the educational enterprise might one expect to discover the most effective instructional methods and materials in use? Reason might dictate that professors of educational administration, by the very fact of their particular specialization, should be masters of pedagogy and curriculum development. However, the 1960 yearbook of the American Association of School Administrators (AASA) incisively criticized the instructional method and content of courses in school administration:

The mediocrity of programs of preparation comes from the sterility of methods reported. Instruction is classroom bound; administration is talked about rather than observed, felt, and in these and other ways actually experienced. Where the student should be "scared" by exposure to the facts of administrative life, he is instead bored by the tame fare of second-hand success stories. Where the student should be fattened by a rich diet of multidisciplinary fare, he is starved by the lean offerings of provincial chow. (1960, pp. 83-84)

Only four years later an AASA survey of preparation programs

for administrators indicated the changes that were taking place:

The use of simulated situations, game theory, cases, theory development and problem-oriented seminars, in addition to or without the usual textbook-lecture-discussion technique, is mentioned in a majority of the questionnaires (from 212 of 289 institutions offering graduate work for superintendents of schools) even though no specific question was directed toward these approaches to learning. How prevalent they are is unknown, but they certainly form a part of the frontier in the teaching of school administration. (1964, pp. 44-45)

The one thing that the surveyed professors insisted on reporting to AASA was that they are using a variety of new teaching materials and techniques. A substantial amount of similarly persuasive evidence discloses that remarkable progress has been made since 1960 in the development of instructional methods and materials for programs in educational administration.

SCOPE AND PURPOSE

This monograph deals with the development of some of the more noteworthy unconventional methods and materials of instruction being used in the preparation of school administrators. Other monographs in this series deal with the use of computer-assisted instruction, field experiences, and inservice training for school administrators; therefore, these methods are not included in this discussion.

Another limitation of this monograph deserves mention. The development of instructional methods and materials contributes not only to the preparation of school administrators but also to research, theory development, scholarly thought in administration, and various managerial aspects of preparation programs, such as the selection of students and the assessment of their performance. This discussion is limited largely to consideration of instructional contributions to administrator preparation, although brief attention is given to several of these other matters, particularly in chapter 4.

It is hoped this monograph will call attention to some of the more noteworthy unorthodox instructional methods and materials for preparing school administrators. The dissemination of promising instructional practices may be quickened by the identification of persons, organizations, and institutions associated with some of the prototypic developments. Although the literature on this topic was

searched and all member institutions of the University Council for Educational Administration were invited to contribute materials, space limitations and the fugitive nature of much of the descriptive material preclude all prototypes being included here.

Chapter 2 provides a historical perspective on the topic and explores the rationale that supports the accelerating development of innovative instructional methods and materials. Chapter 3 describes new instructional methods and materials under the headings laboratory training, case method, simulation, games, and independent study. Chapter 4 deals with some current problems and issues relating to instructional methods and materials and forecasts future trends. A bibliography calls attention to literature related to the topic.

DEFINITION OF TERMS

The nomenclature of unconventional instructional methods in management training is disorganized and imprecise. The term *case method* is one exception, since it carries a rather well-understood connotation of both material and method. However, the sophistication of the method is, as with most instruction, a function of the instructor and learner rather than the material.

Beyond this term, the nomenclature becomes rather murky. For example, in a strict sense the term *simulation* specifies a *process* by which instructional material or a learning activity is created. As such, the term tells us nothing of the instructional method employed in the use of the material. The terms *films*, *games*, *cassettes*, *videotapes*, and *resource banks* also specify only the media and tell us nothing of the method, content, or objectives of instruction.

The term *human relations laboratory* is unique in that it suggests content, but the term *laboratory* is so vague in this usage that it covers a wide variety of methods; that is, the laboratory method may be used to generate learning in any content area. Again, *role playing* specifies an activity that may be used for learning, but tells us nothing about instructional method or materials.

These matters are treated here as reminders of the communication problems that exist in dealing with instructional methods and materials. They also suggest the impossibility of establishing orderly and exclusive categories in the discussion that follows.

In spite of these difficulties, it is necessary to provide some definition of the methods of instruction discussed here.

LABORATORY TRAINING

Laboratory training is commonly addressed to the task of influencing behavior in a social system or subsystem and, in that context, is spoken of variously as "human relations training," "leadership training," "T-groups," "sensitivity training," and "encounter groups." Laboratory training ranges from simple "quickie" exercises of a few minutes' duration to intensive training seminars lasting several weeks or longer. Thus, the term *laboratory training* embraces a wide variety of instructional stratagems that almost defy precise definition. McIntyre defines the laboratory approach as "an instructional system or procedure in which a *group* of learners is placed in a *situation* usually having some of the elements of reality simulation, in which the learner's *behavior* in dealing with the problem at hand produces *data* that are *organized* and *fed back* to the group to form a basis for *analysis* and interpretation by the group" (1967, p. 14).

SIMULATION

The term *simulation* defines a process by which reality-oriented materials are generated, rather than a discrete instructional method or medium. Thus, the distinctions between simulation and other classes of instructional materials, such as case studies, or between simulation and other modes of instruction, such as role playing, are not precise. In common parlance, simulation is used with reference to a multitude of learning activities and instructional methods. In scope it may include the representation of a simple incident or exercise, or the creation of a complex system. The system may be a social system, such as a school district; a man-machine system, such as a pilot and his aircraft; or a pure computer simulation involving only computer-problem-solving behavior. As used for instructional purposes in educational administration, simulation is commonly of the social system type but ranges from simple incidents to complex systems.

Many definitions of simulation have been advanced. For the purposes of this monograph, I prefer this definition by Sackman:

Simulation is the differential representation of objects and events in any portion of a referent system and its environment by actual and analogous counterparts as they are operationally defined and exercised in an experimental test setting. (1967, p. 305)

CASE METHOD

Broadly speaking, a *case* may be defined simply as a narrative description of a real event, written or dramatized on sound film, videotape, or audiotape, and varying in length. The case usually contains a problem, set in sufficient background to permit adequate understanding of the variables impinging on the resolution. The problem may range from a simple issue to a complex topic placed in a broad context of time and milieu. The case description may or may not include the decision actually taken with respect to the real problem.

Particularly in educational administration, but not always so in public administration, the case study is nonfiction, with only names and identifiable artifacts changed to protect the anonymity of the real circumstance. Although simulations may be built on real situations, the simulation narrative is usually more fictionalized and more didactic than the nonfictional narrative of the case description.

GAMES

A *game* is an instructional system or procedure in which learners participate, either as individuals or as teams, in a simulation of reality. The participants' role playing produces data that are organized and fed back to the competitors to form a basis for scoring performance and identifying winners and losers of the game. Thus, games include (1) simulation of reality, (2) role playing of assigned tasks, and (3) scoring of performance. Without the scoring and the competition implicit in the scoring, games would be indistinguishable from a case study or an in-basket type of simulation. (An *in-basket* is a collection of unfinished tasks such as those commonly found in an "in" basket on one's desk.)

The game commonly includes background material, a problem or array of problems, and a set of criteria that define the quality of the solutions from the perspective of the role the individual player or team assumes. The criteria order the data, which are fed back in a manner that yields scores and permits the determination of the winner and loser.

Games may be differentiated as single-round or multiple-round. In single-round games, the play ends when decisions are reached on a single problem or set of problems. Multiple-round games require the players to respond to more than one round of problems, with the options for subsequent decisions constrained or opened by the consequences of the previous decision.

Games may also be classified as general or functional. General games deal with broad problems of planning, organizing, coordinating, or communicating in which the relationships among the variables are not precisely clear. Functional games deal with much more specific problems, and the relationships among the variables are clearly specified. The game may include as many or as few variables as are essential to the decision at hand.

INDEPENDENT STUDY

Independent study is study undertaken under the student's direction either with or without an adviser's assistance in planning, guidance, and evaluation. The media of independent study are legion: books, periodicals, surveys, films, videotapes, audiotapes, case studies, observation, term papers, dissertations, research projects, and many others. Independent study may be programmed or unprogrammed, incidental or systematic, supplementary or self-sufficient, for credit or not for credit, self-initiated or faculty initiated. Independent study is so common and so well understood that further description of the concept is unnecessary.

MATERIALS OF INSTRUCTION

Most of the materials of instruction may be used in conjunction with any instructional mode. The treatment of materials of instruction is therefore incidental to the discussion of the instructional method.

2

History and Rationale

Beginning in the late 1940s and continuing through the 1950s and 1960s, several organizations played important roles in the development of innovative instructional methods and materials for preparing educational administrators. The exploratory and developmental work of these organizations, together with a variety of other forces for change, contributed to the remarkable progress made in recent years.

EARLY INITIATIVE OF NCPEA

The National Conference of Professors of Educational Administration (NCPEA) was the first national body to draw sustained attention to preparation programs in educational administration. Most of its early pronouncements dealt with platitudes rather than conceptual systems and with general substance rather than with method. Nevertheless, the report of NCPEA's second annual work

conference in 1948 did stress the importance of improving "the techniques of instruction" and the need for a "wide variety of teaching methods," including group instructional techniques, independent study, and field experience. Its list of suggested instructional materials—"pictures, old documents, film strips, and other visual aids"—sounds rather quaint.

Through the 1950s, NCPEA general sessions and interest groups frequently dealt with preparation programs, but attention appeared to focus primarily on the substance and the administration of the programs; little emphasis was given to instructional methods and materials except for sustained attention to internships.

In 1953 an NCPEA Committee on Instructional Practices reported that "most of those attending the meetings of this [interest] group were not familiar with the design and philosophy of the case method as used most extensively by Harvard University. The interest shown in this technique prompted a discussion which lasted over three days and for which questions were asked at almost every meeting" (Childress 1953, p. 2).

A chapter on "Learning Administrative Behavior" in a 1957 NCPEA publication (Campbell and Gregg 1957) spoke of the need for greater attention to the development of skills in human relations and group processes. This chapter also cited perhaps the first prototypes of laboratory training in human relations for school administrators on several campuses.

IMPETUS OF CPEA

In 1955 the Southern States Cooperative Program in Educational Administration (CPEA) surveyed instructional practices in preparation programs for school administrators and noted some use of role playing, case studies, workshops, and audiovisual aids, along with more conventional instructional methods. However, frequency of use was not reported.

The Cooperative Program in Educational Administration in the 1950s stimulated improvement of preparation programs for school administrators, but again effort appeared to be directed primarily toward development of substance, with relatively little attention given to method of instruction. Attention to field experiences, particularly the internship, was a notable exception.

RAPID DEVELOPMENTAL WORK OF THE 1960s

With the exception of the case method, human relations training, and field experiences, concerted use of new instructional methods and materials developed after 1960. As noted in the introduction, the 1960 AASA yearbook complained of the sterility of instructional method in preparation programs and concluded that departments of educational administration generally had not made use of role playing, field study, simulation, or any of a variety of other instructional techniques. A few years later, AASA (1963) designed a model preparation program for school administrators that included use of case study and simulations.

USE OF SIMULATIONS BY UNIVERSITIES

By the early 1960s a substantial movement from "sterile" to reality-centered methods of instruction was clearly under way. Wynn (1964) reported that by 1964 at least sixty-five universities were using simulated materials in either preservice or inservice programs. Wide application of other types of reality-oriented instruction quickly followed. The general theme for the 1964 NCPEA conference was "The Instruction of Tomorrow's Educational Administrators," with most of the program devoted to instructional methods and materials, particularly the case method, games, human relations laboratory exercises, simulation, field experiences, surveys, and observation (Thomas 1964).

Culbertson and his associates (1969) pointed out that preparation programs for school administrators in the 1960s were characterized by developmental work focusing more on simulation than on case materials, laboratory training, programmed instruction, or sensitivity training. They noted that the most commonly used type of simulation was based on the written, in-basket technique, supplemented by multimedia background information, filmed problem stimuli, and taped interruptions.

REASONS FOR CHANGE

There are several noteworthy reasons for this growing interest in less conventional and more reality-oriented methods of school administrator training.

Sterility of traditional instruction. The discomfort of the profession with the sterility of "classroom-bound" instruction, as expressed in publications of AASA and NCPEA, has already been noted. This factor was reinforced by a UCEA study that sought to identify the main trends and critical needs of doctoral programs for preparing school superintendents (Culbertson and Farquhar 1971). The study reported that the characteristics of methodology in preparatory programs most highly valued by both professors and practicing school administrators are the variety of approaches employed, the extent to which student participation is encouraged, and the degree of reality orientation. Programs rated high on these variables were more positively perceived than other programs.

The report also noted that many professors and administrators rejected heavy reliance on the traditional lecture-and-textbook approach to teaching. Overreliance on lectures was identified as a common weakness of a number of programs. Concomitantly, the desirability of increased use of seminars, small-group discussion, reality-oriented approaches (such as case analysis and simulation), and other strategies to stimulate increased student involvement was noted.

Impact of other fields. Instructional innovation in other fields of administrator preparation also had an impact on programs in educational administration. Enterprises of the Cooperative Program in Educational Administration brought together professors of educational administration and professors of business administration and public administration, thereby quickening an exchange of insights into instructional methods and materials. (Preparation programs in business administration had used case studies and management games much earlier than programs in educational administration.)

Frederiksen's in-basket simulation methods, designed for business managers, served as a bridge between business and educational administration (1957). Frederiksen also sparked initiative with the Development of Criteria of Success project, which produced the first sophisticated simulation in school administration. Although few of the project's instructional materials were transferable from one field of administration to another, the methods of instruction were.

Management science emphasis. Meanwhile, "business schools" were becoming "schools of management" on the theory that management science is generalizable to virtually any organizational

environment, profitmaking or otherwise. Management schools were preparing to train managers for both public and private enterprises and were becoming less interested in theory and knowledge and more interested in the development of attitudes and skills of management (System Development Corporation 1970).

Proponents of this view held that management skill is in the application of knowledge rather than in the knowledge itself. Predictably, this change in emphasis was accompanied by increasing use of methods of instruction designed to strengthen management skills in mathematical modeling, linear programming, and decision-making through the use of management games, role playing, T-groups, case study, and other reality-oriented types of instruction.

Reality orientation. The need to relate instruction more directly to the reality of administration was becoming increasingly evident. Simon's picturesque description of classical content in administration as "homely proverbs, myths, slogans, pompous inanities, in terms not unlike those used by Ubangi medicine men to discuss disease" was as applicable to school administration as it was to other fields of management. Simon insisted that the content of literature and instruction in administration—not school administration particularly, but administration in general—suffered from superficiality, oversimplification, and lack of realism. In launching this attack, Simon gave expression to the widespread disenchantment of many academicians and practitioners with the substantial gulf between prescribed principles and effective practice.

During the last two decades, reality orientation has been a common element in most instructional innovations in educational administration. Early interest focused on taking the classroom into reality through internships and other types of guided field experiences. Although this interest has continued, many recent innovations have been designed to bring reality into the classroom. Both emphases are needed. Both seek to reduce the gap between theory and practice by placing them in juxtaposition in the preparation program. The student administrator no longer need wait for on-the-job experience to apply theory to practice.

Reality-oriented instructional method usually stimulates affective development as well as cognitive development in a manner beyond the capability of the usual lecture or reading. The fundamental importance of the administrator's values, tastes, emotions, anxieties, and satisfactions in his administrative behavior becomes

evident. Instructional methods that force him to participate actively in reality-oriented situations compel him to face the consequences of his behavior both intellectually and emotionally. Professors of educational administration share a growing recognition that the development of socially effective school administrators cannot be left to chance.

In an era of great social and emotional unrest in the educational scene, the social and emotional dimensions of the school administrator's behavior become more important. The militancy of students and teachers and the unrest of minority groups have forced on the school administrator fateful dilemmas that can be separated neither from their social and emotional context nor from the administrator's social and emotional constitution.*

Several educational historians have noted that the emphases in programs of school administrator preparation have been clearly related to the dominant values of the times. If there is a dominant value for today's pedagogues, it is the word *relevant*. In a social milieu that is becoming predominantly existentialist, it is hardly surprising that students of all ages are demanding with increasing fervor that we "tell it like it is." The aim of existentialist education, as O'Neill (1964) points out, is not simply to help the individual cope with his existence, but also to help him *experience* his existence by confronting him with a sense of defined purpose. For the existentialist, the proper outcome of education is a certain attitude toward life, and the educated man is characterized not only by what he knows, but even more by what he is capable of knowing and experiencing.

The requirement that the student administrator experience the realities of school administration characterizes the unconventional instructional methods in modern preparation programs for school administrators.

UCEA and federal funds. In spite of these social forces, the movement toward reality-oriented instructional methods in educational administration would have been sorely handicapped without the simultaneous emergence of two fortunate events: the

*For an excellent development of this reasoning, see Jack Culbertson and others, *Preparing Educational Leaders for the Seventies*, (Columbus, Ohio: University Council for Educational Administration, 1969), Chapters 6-9.

creation in 1955 of the University Council for Educational Administration, which accepted responsibility for the development of instructional materials and the enrichment of instructional method; and the availability of federal funds for the support of this developmental work.

The Development of Criteria of Success project, which produced the first simulated school system (described in chapter 3), was undertaken by UCEA with federal financial support. This combination of UCEA enterprise and U.S. Office of Education funds sustained the development of second- and third-generation simulated school systems and the Articulated Media Project. The latter project placed major emphasis on the role of concepts as guides to design of instructional methods and materials.

In subsequent undertakings (also described in chapter 3), UCEA has emerged as a prolific producer of new instructional materials adapted to well-rationalized instructional purposes. The importance of UCEA in the improvement of both instructional methods and instructional materials in educational administration can hardly be overemphasized.

3

Current Practice

Attention now turns to descriptions of predominant types of unorthodox instructional methods and materials and to discussion of their application. In most instances, generalized statements are made concerning the advantages and disadvantages commonly associated with each method.

The reader is reminded that no claim is made regarding exhaustive coverage of all prototypes of unorthodox instructional methods in the field. My intention has been to consider the more widely used instructional methods and some of the more creatively designed models in the hope that these descriptions, limited as they are in scope, will help the reader perceive the general development of these unconventional methods.

LABORATORY TRAINING

Laboratory training may be directed toward the improvement of conceptual, human relations, or technical skills. In the field of

educational administration, most laboratory training has been in the area of human relations.

Laboratory training in human relations had its origins as far back as 1914 in Moreno's work with psychodrama and encounter. Moreno explains that "encounter" is the nearest translation to the German word *Begegnung*, which

conveys that two or more persons meet not only to face one another, but to live and experience one another—as actors, each in his own right. It is not only an emotional rapport, like the professional meeting of a physician or therapist and patient, or an intellectual rapport, like teacher and student, or a scientific rapport, like a participant observer with his subject. It is a meeting on the most intensive level of communication. . . . It is an intuitive reversal of roles, a realization of self through the other; it is identity, the rare, unforgotten experience of total reciprocity. The encounter is extemporaneous, unstructured, unplanned, unrehearsed—it occurs on the spur of the moment. . . . It is the convergence of emotional, social and cosmic factors which occur in all age groups. (1969, pp. 7-16)

Moreno spoke of encounter in much the same manner as it is spoken of today. He saw *Begegnung* as the confrontation of persons who try to see life through the perceptions of others and who try to relate in the fullest possible sense with those others. Like most forms of human relations training, psychodrama uses both verbal and nonverbal communication to explore interpersonal relations.

Many of the pioneers in human relations training were students or observers of Moreno. The list includes Lewin, Lippitt, and Bradford, three of the original founders of the National Training Laboratories (NTL). At the outset, human relations training was perceived as the training of leaders to meet the needs of modern organizations and employed the traditional academic modes of lectures, seminars, and discussions.

In 1946 Lewin started the first T-group, an unstructured training group that became the basic form for sensitivity training in the NTL during the late 1940s and 1950s. The T-group represented a new approach to training, by which an unstructured group studied its own dynamics of interaction. Participants were removed from their everyday responsibilities and immersed in the live-in laboratory activities for two or three weeks of intensive interaction. The work of the NTL constituted the major effort toward sensitivity training during this era. It brought together hundreds of

corporation executives, counselors, psychotherapists, college students, public administrators (including many school administrators), college professors, other educators, and even confirmed drug addicts and criminals. Human relations laboratory training spread to such various settings as industries, universities, school systems, and churches.

As Benne (1964) points out, a significant shift in emphasis took place in the NTL by the midfifties. Broadly speaking, the original social psychological emphasis was replaced by a clinical psychological orientation; the milieu of study became the interpersonal episodes between the trainer and the individuals in the group, rather than between the trainer and the organizational and community structures represented earlier. The latter focus was usually preferred by business firms (commonly more interested in productive organization than in personal development) and typically followed traditional human relations laboratory training models. The focus on personal development enjoyed more currency among counselors, psychotherapists, and educators. The interpersonal pattern, with its emphasis on personal growth, has given rise to scores of sensitivity training groups, encounter groups, and human growth groups, which in turn have given impetus to the "human potential movement," as it is commonly known.

For the conceptual underpinnings of this movement, one may select almost any theoretical basis that he prefers, as Rogers (1967) points out. Lewinian and client-centered theories have been most prominent, but Gestalt therapy and various theories of psychoanalysis are also widely used, as well as Rogers' own concept of "student-centered teaching."

The recent interest in sensitivity training has produced large numbers of group leaders, ranging in qualifications from highly skilled group psychotherapists to thoroughly untrained and incompetent individuals, some of them pure charlatans. It is not surprising that public and professional reaction to sensitivity training varies from those who find it extraordinarily helpful to those who regard it as fruitless or, worse yet, dangerous.

In the field of educational administration, examples of various types of laboratory training in human relations as well as sensitivity training and encounter groups illustrate common assumptions underlying laboratory training.

Generally speaking, these assumptions include the following tenets of human learning:

- Free expression of personal feelings is essential to affective development.
- Expression of feelings will be freer in small, relatively unstructured, and client-centered group activity.
- Immediate feedback of the consequences of one's behavior is essential to self-understanding and the improvement of one's interpersonal relations.
- Active participation in the learning process quickens one's learning.
- Learning activities that are related to the learner's real-life responsibilities are more effective.
- Affective development is more meaningful and effective when the learning tasks are designed to elicit emotional and social responses.

Most laboratory training programs are characterized by certain common methodological characteristics:

- The groups tend to be small.
- The groups are relatively unstructured, choosing their own goals and tasks.
- The groups tend to be learner-centered; the leader's responsibility is usually confined to facilitating the group's objectives, managing feedback, aiding communication, and perhaps introducing some cognitive input.
- Intense focus is on group process and the dynamics of interpersonal interaction.

The experience itself is the essential message of the laboratory.

Rogers calls attention to the sequence of behavior that is common in many intensive human relations training and encounter groups:

1. milling around
2. resistance to personal expression or exploration
3. description of past feelings
4. expression of negative feelings
5. expression and exploration of personally meaningful material
6. expression of immediate interpersonal feelings in the group
7. development of a healing capacity in the group
8. self-acceptance and the beginning of change
9. cracking of facades
10. receiving of feedback by individuals
11. confrontation
12. helping relationships outside the group sessions
13. basic encounter
14. expression of positive feelings and closeness
15. behavior changes in the group (1967)

HUMANITIES SEMINAR

During the summer of 1970 at Syracuse University, Herring and Randles conducted a humanities seminar to explore the following questions: Will educators given a concentrated exposure of "creativity experience" in the humanities (1) express themselves differently than they did before the experience? (2) display more diversity and imagination? (3) evidence greater imagination and creativity in the organization, structure, and content of written materials? (4) change their values pertaining to the arts? and (5) change their opinions about values and morality? In short, the seminar was designed to "generate some kind of social and emotional climate which would free people to be both authentic and creative."

The seminar was based on the following rationale, explicated by Farquhar:

Successful organizational leadership is a creative act in that the administrator must take a myriad of intricately interrelated variables and from them fashion some kind of meaningful pattern, structure, form, or sequence. He must understand how one element in his creation derives inevitably from another and irrevocably determines a third. He must be aware of natural sequences, he must foresee consequences, and he must recognize critical points. He must know where the imposition of his will may have an effect and where the result of a sequence is predetermined. All these capabilities, the argument goes, characterize the successful artist as well as the successful administrator.

. . . such terms as "harmony," "discord," "clash," "complement," and "incongruity" can be applied as readily to administration as to music, painting, or literature.

The administrator has been likened to the symphony conductor and the drama director; analogies drawn from the other arts may be equally appropriate. In a word, the administrator must be an artist: He must possess creative skills akin to those of the producer of art, and he must possess analytical skills akin to those of the interpreter of art. (1970, pp. 14-15)

In sum, it was thought that an opportunity to develop creative skills should contribute to administrative effectiveness; the seminar activities were based on this assumption.

The activities of the two-week seminar included getting acquainted; brainstorming a problem identified by the group; visiting museums; seeing the movies "Getting Straight," "Woodstock," and "Patton"; experiencing the evolution and present state of Indian

music; participating in a "trust exercise"; discussing the philosophical connotations of acting and dramatics with an expert on the subject; seeing performances of "The Boys in the Band" and "The Me Nobody Knows"; discussing the arts with a poet and song writer; visiting with Rod McKuen; viewing a demonstration of creativity by an art teacher; watching an exhibition of karate; discussing the meaning of creativity and the characteristics of a creative society; sharing feelings and perceptions of each other; discussing the relationship between folk music and the blues; and verbally evaluating all the experiences.

Several instruments were used to gather data from the participants before the experience and again at the end. The evaluation of the experience yielded tentative affirmative answers to all five questions posed earlier. It also revealed an enhanced quality of interpersonal relationships among the group.

HUMAN RELATIONS TRAINING LABORATORY FOR CHANGE AGENTS

The University of Tennessee has developed a new program for school administrators designed to prepare them to function as change agents in the schools of southern Appalachia. The program employs a variety of instructional methods, including a human relations laboratory (sensitivity training); field experiences, such as internships in the students' home districts; simulated problems; a humanities seminar; a behavioral science seminar; seminars in change agency, decision-making, and group processes; and course work.

This description is limited to the human relations laboratory component of the program, under the direction of Trusty.

Two weeks of intensive work are devoted to the laboratory phase of the program, which is directed by trainers from the NTL. The rationale of the program rests on the premises that those who will function as change agents must be capable of changing themselves, must understand the nature of change, must acquire some insight as to how they changed, and must be able to acquire skills in facilitating change among the people they work with as administrators. It is assumed that human relations training provides a major vehicle for assisting each prospective administrator to understand himself better and to deepen his understanding of

his relations with others. It is also assumed that the work of the administrator is most effective when it concerns itself with the process by which work gets done. The emphasis of the University of Tennessee's human relations training component is placed on personal growth, improving effectiveness in interpersonal relations, and developing communications skills in an organizational setting.

Although several instruments have been used in attempts to assess the impact of the various program components, the major evidence in support of the human relations training component derives from the students' ranking of this experience as "most valuable." The faculty concludes that as a result of this experience the participants are increasingly willing to look at themselves objectively, to accept their strengths and weaknesses, to share with their colleagues, to explore change and innovation with less rigidity, and to develop a personal authenticity and commitment to improving educational opportunities.

SKILLFUL PERSONAL ENCOUNTER

Under the leadership of Croft, the Ontario Institute for Studies in Education has developed two courses using the laboratory experience for development in human relations. One course is designated as "Skillful Personal Encounter." In an unpublished paper, Croft describes the essential ingredients of skillful personal encounter:

- It requires a firm and lasting commitment to and interest in *others* and is most strongly, but subtly, identified by the emphasis on "not letting go," that is, the determination to sustain one's interest in the personal experience without ceasing to care about it.
- It requires paying attention to depth of experience, that is, working through all the human and interpersonal dynamics that are perceived and felt in a given situation.
- It is more a *choice* on the part of the participant than a design of the situation or experience.
- It is addressed to the personal impact or dynamic impact of the situation, that is, what the experience is *doing* to the individuals rather than what it is *doing for* them.
- It is more dependent on subjective impressions of the moment than on accuracy and validity of impressions. (paraphrased from pp. 1-16)

The rationale for the skillful personal encounter is based on these assumptions:

- It is the responsibility of the student to seek and explore himself in his interpersonal work.
- It is the responsibility of the student to experience and discover the impacts he makes on others.
- People in schools are primarily growth facilitators engaged in producing significant change in others (learning).
- Personal skills and resources and meaningful, personal integration of learnings can be acquired only through personal choice; that is, the willingness to participate fully in significant personal encounter.
- Meaningful integration of related literature can best occur when the literature content helps to explain some phenomenal reality for the person in the encounter.
- Every aspect of the course, including the evaluation scheme, is specifically planned to create a climate conducive to skillful personal encounter. (paraphrased from pp. 17-18)

Croft's second course, "Interpersonal Relations in School Systems," as the title implies, deals with the personal relations of people in schools. Task groups composed of five persons work through a kit (Human Development Institute 1968) designed to give them an elementary foundation in knowledge of interpersonal relations. The tasks in the course are inductively designed from the needs expressed by the group. The instructor introduces, when appropriate, a number of "structured interventions," which provide guidelines for experimentation with interaction to facilitate learning about human behavior, and particularly about one's own response to a given situation. These interventions range from authority-prone directions given by an expert psychodramatist to role-playing or simple pencil-and-paper activities to illustrate or derive the interpersonal dynamics occurring in the class.

Croft reports that the constant interplay between practical problems and personal encounter proves most rewarding. "New ideas, thoughts, and intensely personal relationships emerge at an energetic rate. A natural link between field problem and laboratory trial is created, and distinctions between theory and practice pale into insignificance when they are placed beside a basic tenet of skillful personal encounter" (p. 29).

LABORATORY IN MAXIMIZING INDIVIDUAL AND ORGANIZATIONAL EFFECTIVENESS

Washington State University reports on a five-phase program in human relations training, aimed at maximizing both individual and

organizational effectiveness. It is designed to apply existing knowledge about learning and organizational improvement to the problems of school organization and the staff development and training function.

Phase 1 of this program introduces and reinforces a relatively small number of important concepts chosen because of their relationship to organizational needs. Participants are made aware of:

- alternatives available to them in their approach to leadership
- their own predominant style of leadership and its impact on others
- other possibly more effective leadership styles to serve as desirable models
- specific skills that contribute to more effective leadership
- opportunities to practice these skills
- opportunities to establish more effective working relationships

In phase 2, the participants are organized into teams to examine such factors as leadership, communication, interpersonal relations, and decision-making and are given an opportunity to apply the concepts learned in phase 1 to immediate organizational problems. The objectives of phase 2 are to develop effective team efforts; to examine, improve, and clarify objectives; and to identify problems of coordination and cooperation with other functions and at other levels within the organization.

Phase 3 gives attention to problems of coordination, cooperation, support, communications, and misperception that are identified as existing within the organization. The objectives of this phase are to improve communications in order to gain and maintain coordination of effort and to revise instructional objectives.

In phase 4, individuals are given an opportunity to apply their understanding and skills to schoolwide problems where broad questions of organizational improvement and change can be analyzed and where recommendations for change can be made. The specific objectives of this phase are to rethink and improve on every aspect of the educational process, to anticipate and plan for change, and to develop coordinate systems relevant to organizational goals.

Phase 5 provides the impetus for an integrated application of the developments in the first four phases. Goal setting and measurement are emphasized in that these constitute important aspects of individual, group, and organizational life. This emphasis provides feedback to make the system a self-correcting one. Possible

changes that might be covered in phase 5 include modifications in organizational structure, changes in functions of certain organizational units, more comprehensive planning of objectives, more rapid assimilation of innovations in teaching, and review of personnel policies and practices.

OTHER LABORATORY DESIGNS

Kenneth McIntyre at the University of Texas has pioneered in the development of a variety of laboratory exercises designed to reveal certain phenomena in human behavior or unforeseen complexities in seemingly simple tasks. These exercises are single-purpose tasks that can be completed in relatively short periods of time. For example, in one exercise half the participants are asked to waive a school regulation for the son of a distinguished local judge, while the other half are confronted with the same request for the son of a day laborer. The results of the two groups of responses are compared.

In another instance, participants are placed in teams of two or more, and each team is given a deck of cards containing three sets of scores for a group of pupils. The participants are asked to group the pupils into three homogeneous groups for instructional purposes and then to find the spread for each of the groups on any of the other scores. The usual reaction is one of surprise when the participants learn how ineffective one basis for grouping is in reducing the variability in each section on the other measures (Bes-
sent 1967, pp. 14-26).

The National Academy for School Executives (NASE) has made wide use of laboratory exercises, designed by its staff and consultants, in the scores of seminars sponsored by the academy across the country. Most of these laboratory exercises have been constructed to develop conceptual and technical skills rather than human relations skills, which are the more common content of laboratory exercises in educational administration. Although intended for use in inservice seminars for administrators, the materials are also useful in preservice preparation programs, and some of them have been so used. At the time of this writing, NASE has designed and used laboratory exercises addressed to the following tasks:

- design and selection of instruments for evaluation of teachers
- development of strategies for winning a bond issue
- planning of strategies for coping with a simulated teacher strike
- design of a decentralization plan for a large urban district
- refinement of skills related to public speaking in the mass media
- development of skills in the use of the Delphi technique to prepare long-range forecasts and action plans based on the forecasts
- analysis of the technique of educational auditing
- establishment of systems of accountability
- forecasts of the role of the principal and criteria by which his work should be evaluated
- implementation of planning-programming-budgeting systems
- development of the technology for establishing and monitoring performance objectives for a school staff
- analysis of prototypes of differentiated staffing and design of one's own model

To illustrate the type of laboratory exercises developed by NASE, the last item listed above, dealing with differentiated staffing, is described in detail. Entitled "Innovations in School Staffing and Organizational Patterns," the lab materials include a description of the simulated tasks assigned to the participant:

1. analyze in detail a prototype differentiated staffing plan currently in existence and described in detail in the laboratory materials
2. prepare a report for the board on the strengths and weaknesses of the plan
3. develop implementation strategies for adopting a differentiated staffing plan in the local school district
4. present the plan to the seminar

The purposes of the exercises are fourfold:

1. to sharpen skills in the analysis of innovative staffing patterns
2. to develop a systematic procedure for making such an analysis
3. to develop an awareness of factors that must be considered in the implementation of the differentiated staffing plan
4. to acquaint the participant with possible strategies for coping with these factors

Each participant is given a set of instructions to guide his team's work. The team prepares an implementation strategy for a differentiated staffing plan designed for the "Hometown School District." Background material on the district is given. The instructions suggest that the report include the following considerations:

- priority ranking of activities related to implementation of the plan
- budget priorities

- building program
- inservice activities
- public relations program
- assignment and reassignment of present staff—administrative and instructional
- recruitment, selection, and acquisition of new staff members
- evaluation procedures

The teams of participants then role play the presentation of their report before the remainder of the seminar group, who play the role of the "Hometown Board of Education."

The extensive use of laboratory exercises in NASE seminars is consonant with the academy's commitment to develop practical skill in dealing with contemporary administrative tasks. These exercises represent functional rather than general laboratory training, since they deal with specific and quite limited administrative problems.

CASE METHOD

The case method of instruction has a long history of use in schools of medicine, law, and business administration, and in most of the clinically oriented professions. Case study in medicine and the clinical disciplines usually is used in analysis of individual case histories for diagnosis and treatment. In legal training, cases are used to analyze the principles of law in question and to illuminate their application to litigation. The use of case studies in business and public administration is more analogous to their use in school administration, since the content of these cases usually deals with group behavior in complex organizations.

The case method in medicine is almost as old as the study of medicine itself. The case method in law is almost a century old. The beginning of case study in business administration occurred in the Harvard School of Business immediately after World War I.

The use of cases in training school administrators is a more recent development, stimulated nearly two decades ago by the first three substantial compilations of cases in educational administration (Sargent and Belisle 1955; Griffiths 1956; and Culbertson, Jacobson, and Reller 1960). Since then, many other collections of cases have become available in the field of educational administration. UCEA's annual catalog, *Materials for Preparing Superintendents*,

Principals, and Other Educational Leaders, lists sixty-six annotations of case studies, including four filmed case studies and two tape-recorded cases, which cover a wide range of administrative dilemmas and are available through UCEA. Two additional UCEA publications are also germane to the development and use of case studies: Immegart, *Guides for the Preparation of Instructional Case Materials in Educational Administration*; and Horvat, Bridges, and Sroufe, *Case Studies in Educational Administration: An Information Storage and Retrieval System*.

The case was defined earlier as simply a narrative description of an event. The event usually contains a problem and is narrated in sufficient context to reveal the forces, circumstances, and dilemmas inherent in the problem. The case may stop at the point of decision, with the solution and its consequences unrevealed, or it may include a description of the decision taken and perhaps the aftermath of the decision. This distinction has important consequences with respect to the instructional use of the case. When the decision is not revealed, the learner is faced with the tasks of identifying possible decisions, forecasting the consequences of the alternatives, and selecting the preferred one. When the decision is revealed, the learner's task becomes that of evaluating this decision.

The medium of the case study may be a written narrative or a dramatization on film, videotape, or audiotape. The narrative may vary in length from a few pages to a book. One popularized case study of school administration, Hulburd's *This Happened in Pasadena* (1951), was almost a national best seller. The crucial characteristic of the case is the power of the narrative or dramatization to capture the learner's interest and emotion so that he is motivated to invest thought and energy in seriously contemplating the de nouement. The intensity of the student's interest in the case is a function of the poignancy of the problem, the skill of the writer or film producer, and the pedagogical skill of the instructor.

Several advantages are commonly attributed to the case method of instruction:

- placing the learner in the seat of the decision-maker and thereby forcing him into an active learning role
- permitting the student to perceive the complexity of the variables and the breadth of the context in which action must be taken
- quickening the student's affective as well as his cognitive response to problems, particularly if role play is combined with the task

- exercising the student's power of critical thinking in relation to reality-oriented circumstances
- helping to bridge the gap between theory and practice
- providing practice in forecasting the consequences of decisions

As in all reality-oriented instruction, much depends on the writer's selection of the event and the context in which it is presented, his interpretation of the context to the reader, and his conceptual ability to provide structure to the narrative.

The filmed case study has both advantages and disadvantages over the written case description, though all the choices stated above still apply to some degree. The filmed case has the advantage of communicating the event with less intervention by the author. Although the problem of fidelity remains in any medium, the picture and sound track are capable of presenting the physical setting, the nuances of expression and gesture, and other aspects of the circumstance in more detail than the written description. The problem of selecting data is simply transferred from the case writer to the director and photographer. On the other hand, the film may impose more severe time and place parameters than the written case. It is also possible for the viewer of the film to assume a more passive role in the study of the case than can be assumed by the reader of the written narrative, who is engaged more actively in the interpretation of the written word.

The case may be structured or unstructured. Some structure and intervention in the discussion by the instructor are usually necessary if organized theory is to be applied to the case and its outcomes. The discussion also helps to refine the perception of relevant data, the analysis and interpretation of the data, the search for possible solutions, the determination of values or criteria to be applied in the selection of the solution, and the establishment of hypotheses for predicting the consequences of the decision.

Programmed cases are beginning to appear, particularly in the field of business administration. For example, Hodgson and Dill (1970) have written a programmed case that permits the reader to return to the writer his preference of the given multiple-choice responses to several problems inherent in the case. The reader then receives a computer printout of the author's commentaries on every possible combination of responses that the reader may have chosen.

The writing of cases from multiple perspectives introduces a dimension in case study that can be quite instructive in studying the phenomenon of varying perceptions of the same reality by different persons. "A Coin Has Two Sides" (Culbertson, Jacobson, and Reller 1960) is an illustration of a written case of this nature. "Unwanted Child" and "The Accused" from the Monroe City Urban Simulation (URBSIM) materials are examples of filmed cases portrayed from multiple perspectives. For example, in the latter the lens of the camera becomes, in sequence, the eye of a teacher, a fellow teacher, a social worker, and a teachers union representative—all experiencing different perceptions of the same events.

The line between the case study and the critical incident or anecdote is sometimes hard to draw. The major distinctions would appear to be the length of the narrative in the case study and the availability of additional information in the critical incident upon inquiry by the learner.

Similarly, it is at times difficult to distinguish between the case study and the simulated exercise. How much fiction must be introduced to transform the case into a simulation of reality rather than reality itself? The "scenario incidents" developed by Alexander and his associates (1967) at the City University of New York for the training of school administrators are a case in point. For their substance, these writers chose a number of related incidents that had actually occurred in an urban school system. These incidents, selected for their decision-making and problem-solving characteristics, dealt with school-community interaction.

The objectives of the instruction were to train the participants to use a more flexible approach to problem-solving, to use more efficient methods of searching for and manipulating information in diagnosing problem situations, to seek information actively rather than wait passively for its provision, and to help the learner develop a deeper awareness of his own style of response and his ability to evaluate the consequences of different response styles. Actual school-community interaction problems were identified by principals of the school system. A simulated input corresponding to an actual incident was written into the scenario. These were called "critical events." In addition, other inputs, called "ongoing events," in the form of memos, phone calls, directives, and reports

characteristic of the stimuli that normally confront the principal, were written into the scenario to provide additional background data and sequential variables. These data introduced a dimension of time and sequence and permitted the telescoping of action normally occupying days or weeks into the frame of forty-five minutes, the time normally allowed for response to each exercise.

As this brief description suggests, these instructional materials contain some characteristics of case study, critical incidents, and simulation, since some fictionalization of the incidents was introduced.

As is true in all development of instructional materials and methods, the task of preparation is in itself an educative experience. Many training institutions involve students in the preparation of case studies either as class projects or as doctoral dissertations. This stratagem not only enriches the store of cases but also provides the opportunity for the student case writers to learn in the process of writing.

Cases dealing with educational administration are now rather abundant. Compilations of cases are available in hardback and paperback, and individual cases are also available from various organizations, principally UCEA.*

I will consider only a few unusual types of cases here. Goldhammer and associates at the University of Oregon have written a case study and a sequel that together illustrate the use of the historical perspective in case writing. Because of the long span of time covered, this approach is unusual. The first case, *The Jackson County Story* (Goldhammer and Farner 1964), covered in rich detail and broad context the conflict surrounding a metropolitan school district during the period following World War II until 1962. Its sequel, *Jackson County Revisited* (Goldhammer and Pellegrin 1968), continues the narrative from 1964 through 1967.

Special Education Placement and the Law, written by Burrello, DeYoung, and Moss at the University of Michigan and produced by UCEA, is a noteworthy example of a filmed case (kinescope).

*See UCEA's annual catalog, *Materials for Preparing Superintendents, Principals, and Other Educational Leaders*, for a list of cases available through UCEA.

This case was designed for the instruction of principals, directors of student personnel services, special education administrators, and superintendents at both the preservice and inservice levels. The film consists of a dramatization of an administrative hearing before a hearing officer appointed by the school board and the school board's legal counsel. The conflict revolves around complaints of parents of black and Mexican-American children about placement of their children in classes for the educable mentally retarded.

The objectives of the case are to:

- inform administrators in educational programs about the legal arguments used in currently filed court briefs, particularly in relation to the nature of educational testing and measurement of the learning ability of students, the role of parents in the placement process of their children in special education, the extent of criteria used to determine the placement of children, and the level of special education programming
- illustrate the rationales used by various experts in school psychology and special education for the placement of children in special classes
- illustrate the impetus of legal action for educational change
- provide a vehicle for the discussion of alternatives to the current identification and referral problems in special education
- place these issues in the context of civil rights, discrimination against minorities, and the "equal protection" clause of the Fourteenth Amendment

The scenario presents background material as follows: a presentation of sections of the state school code germane to the issue, a brief description of the community, a statement of the district's policies with respect to the placement of students in special education classes, a review of current case law germane to the issues, and a discussion of the educational ramifications of policies and practices relating to the placement and instruction of students in special education classes as opposed to accommodation of them in regular classroom instruction.

The primary issues of the case include allegations that the tests used to identify the students are culturally biased, that the criteria used to identify the children are unconstitutionally narrow, that parents should be included in decision-making, and that the special education classes are not alleviating the children's problems. A written supplement to the kinescope contains an instructor's manual and a summary of case law pertinent to the issues.

SIMULATION

Simulation has been used for instructional purposes in a wide variety of occupations over a long period of time, dating back at least as far as the earliest use of war games. For many years military academies and war colleges have used simulated strategic and tactical exercises for training purposes. Modern space training programs have also made extensive use of simulation.

Business and industrial applications of simulation are widespread, numbering as many as 135 simulation games used in management training for business and industry. The American Management Association's Decision Simulation, one of the more ambitious prototypes, replicates an entire business. Greenlaw, Herron, and Rawson (1962) have reported the use of simulation in business and industrial education.

The use of simulation in the social sciences has been discussed by Guetzkow and others (1962). Simulation has been applied to the study of government, international relations, law, social work, and many other social science-based professions. Literature on these applications is extensive; a representative sample appears in the bibliography.

Fattu, Elam, and associates (1965) have analyzed existing simulation models from other enterprises in an endeavor to apply them to education. Twelker (1970) has compiled a very useful synthesis of literature and a bibliography on simulation.

Several authors (Rogers and Kysilka 1970, Boocock and Schild 1968, and Wynn 1964) have written of the advantages and disadvantages inherent in the use of simulated materials for instructional purposes. The advantages can be summarized as follows:

- The evident face validity of the simulation stimulates high interest and motivation in learning.
- Learners are forced to solve problems rather than simply contemplate them, as is often the case in other instructional methods.
- Complex problems and circumstances are made more manageable, concrete, and relevant to the reality of school administration.
- The record of respondents' performances permits the accumulation of normative data and allows clinical examination and comparison of "on-the-job" behavior in identical situations.
- Experimental behavior, which may be very hazardous in the real job, can be encouraged in the low-risk climate of the simulation exercise; mistakes that might be disastrous on the job are not so in the simulated environment.

- Affective, cognitive, and psychomotor learning can be developed to a degree not common with more conventional instructional methods.
- Time can be either compressed or expanded.
- The "responsive environment" that characterizes complex simulation models requires the learner to accept responsibility for his decisions and the constraints that they place on subsequent decisions in a manner uncommon in many other instructional methods.
- Simulation permits a degree of introspection not common in many other instructional methods.

The disadvantages of simulation can be summarized as follows:

- Costs of production are high; costs of operation may also be high if the instruction is computer-assisted.
- Materials are subject to rapid obsolescence.
- Some simulated materials lack guidelines for development and use.
- Use of simulated materials sometimes imposes less flexible time, place, and space requirements than other methods of instruction.
- The scope and fidelity of the simulation may introduce some distortion of reality.

In addition to these disadvantages, the disadvantages inherent in other reality-oriented instructional methods (discussed later) also apply in most instances to simulation.

JEFFERSON TOWNSHIP SCHOOL DISTRICT SIMULATION

The use of simulation in the training of school administrators was greatly facilitated in 1959 by the availability of a simulated school system. This simulation, "The Jefferson Township School District," was generated by an ambitious research project, the Development of Criteria of Success project, reported by Hemphill, Griffiths, and Frederiksen (1962). Although the simulation was designed and used at the outset to develop deeper understanding of the behavior of elementary school principals, many professors recognized the possibilities of adapting the materials for instructional use. By the summer of 1959 three institutions had put the materials to instructional use and reported their experience (Culbertson and Coffield 1960).

Within a few years, literally hundreds of school administrators had agonized over the dilemmas that confronted "Marian Smith," the mythical embattled principal of the Whitman school—a role that was assumed by numerous participants of workshops and classes in which the Jefferson Township materials were used. The simulation included not only rich background material relative to the Jefferson Township School District, presented in the form of

written case material, films, and tapes, but also three in-baskets containing a wide variety of problems typical of those confronting elementary school principals. Thomas (1964) described these simulated materials in detail and demonstrated their use at a meeting of the National Conference of Professors of Educational Administration in 1963.

MADISON SCHOOL DISTRICT SIMULATION

Although the Jefferson Township materials were widely used, it was quite evident by the mid-1960s that the original materials were becoming obsolete and were not as compatible for instructional purposes as they might have been had they been designed specifically for that purpose. Consequently, in 1967 UCEA developed expressly for instructional use a more up-to-date simulation of the same suburban school district, renamed the "Madison School System."

The Madison simulation includes written and filmed background material dealing with the school system and community, in addition to specialized background material and in-basket problems for an elementary principal, secondary school principal, assistant superintendent for instructional services, assistant superintendent for business management, superintendent, administrator of vocational education, and administrator of special education. Instructors' guides are available for each of these roles.

Supplementary materials include a game theory rationale for constructing feedback to in-basket items, a computer-assisted instruction feedback procedure for an administrative in-basket problem, and a packet of resource materials, including transparencies designed to provide conceptual models from March and Simon, Black and Moulton, Miles, Gouldner, Getzels, and others that can be related to the work of the simulated roles. A more elaborate description of the simulated materials and their use is contained in the UCEA catalog, *Materials for Preparing Superintendents, Principals, and Other Educational Leaders*, and in the *Instructor's Guide* supplied with the materials.

The Madison simulation has been widely used in preparation programs for school administrators and in inservice workshops for practicing administrators.

MONROE CITY URBAN SIMULATION

Prompted by the compelling nature of problems on the urban scene, in 1970-71 UCEA developed the Monroe City Urban Simulation project (URBSIM), simulation of an urban school district. The working papers for this enterprise enumerated a number of issues that were to be included in URBSIM. These included, but were not restricted to: black studies in the curriculum, conflict between and among militant groups, planning and placement of school facilities, personnel selection and placement, school system responsiveness to minority group demands, de facto and de jure segregation, decentralization, financing of needed changes, student unrest, community conflict and political decision-making, busing, and curriculum change. Although it was recognized that these problems were not unique to urban school systems, it was noted that they were frequently more intense and pervasive in the urban setting.

The URBSIM materials include three categories of content: descriptive, interpretive, and conceptual. The descriptive content consists of objective material derived from observation of the district and its artifacts and from interviews with persons acquainted with the system. The descriptive material provides insight into the city—its economy, demography, and society; the school system—its student bodies, staff, curricula, and organization; and the problems facing its administrators—race, curriculum change, and finance.

The interpretive and conceptual contents were produced by persons external to the school system. The conceptual content was derived from generalizable concepts that were related directly to the interpretive content. Independent of the descriptive and interpretive contents, the conceptual content is designed to provide instructors and students with a conceptual framework necessary to understand the variables that exist in URBSIM.

URBSIM provides both background material and problems that require participants to make decisions in the context of the district as a whole, as well as on the building level. This material is communicated through the use of films, kinescopes, tapes, handbooks, background booklets, data banks, written case vignettes, structured role plays, filmed and written full-length cases, in-basket tasks, and other media. The simulated tasks are designated for the roles of elementary principal, junior high principal, senior high principal, and superintendent.

An exhaustive description of this simulation is beyond the scope of this treatment (see *UCEA Newsletter* 12, 1971, pp. 3-6). I will confine my discussion to highlighting some of the unique characteristics of URBSIM.

URBSIM is by far the most ambitious simulation of reality-oriented materials in the field of education. Its development has been achieved through the close cooperation of a large number of scholars of educational administration and related disciplines from universities and other agencies across the country. URBSIM focuses on a number of critical tasks not commonly found in conventional simulations, such as educational planning problems. As noted earlier, the simulation is addressed to compelling problems on the urban educational scene, notably issues of education and race, which are not currently well developed in the literature or in educational thought.

URBSIM seeks to build into its materials conceptual content relevant to the issues, rather than to leave the introduction of theory to chance.* The URBSIM materials make greater use of multimedia communication than did previous simulated materials in the field of educational administration. The use of sequential problems is designed to introduce study of problems over a longer span of time, with the cumulative impact of previous decisions bearing on the learner's actions. Deliberate effort is made to generate feedback on the quality of the materials, on the impact of the materials on defined aspects of administrative behavior and the learning of that behavior, on unique uses of the materials, and on ways of evaluating the materials.

Another noteworthy characteristic of URBSIM is its flexibility of use. Selected components of the material may be extracted for

*Some instructors, Kenneth Blanchard (University of Massachusetts), John Croft (Ontario Institute for Studies in Education), and John Kohl (Pennsylvania State University), have found the film series of the Bureau of National Affairs (5615 Fishers Lane, Rockville, Maryland 20852) quite useful in introducing appropriate conceptual frameworks into the Madison and Monroe simulations. The films in this series portray concepts developed by Hertzberg, Lippitt, Batten, Likert, Gellerman, Argyris, McClelland, and McGregor.

specific instructional purposes, such as teaching educational planning or improving skill in responding to student unrest. Materials may be selected to illuminate administrative behavior with respect to a particular role, such as the principalship or superintendency.

One interesting consequence of the simulation has been the development of other simulated materials that are synchronized with the Monroe City model but are focused on additional specialized tasks. The basic model has served to provide the milieu in which other writers could base their simulations without creating a whole new set of background materials. It permits them to link up with well-established, reality-oriented instructional materials to accomplish instructional objectives not served by the original material. Thus, the Monroe City simulation has become the foundation for a more programmatic development of simulated instructional materials.

A prototype simulation to be centered in the "Monroe City" school system is being developed by Brubacher and Shibles (University of Connecticut), and Gaynor (Boston University). It will consist of a major event built around a "macro" problem area—for example, the failure of a major school bond issue. The "macro" problem will be made up of a number of issues, such as school integration, interagency relations, curriculum and instruction, and general school finance. The simulation will be designed to provide learning opportunities related to strategic planning in which inter-related sets of problems are involved. The proposal includes plans for developing and using theoretical frameworks and concepts in instructional situations.

McCloskey (Washington State University), McLoone (University of Maryland), and Burlingame (University of New Mexico) have been engaged in an effort to simulate educational planning problems based on the URBSIM background materials. This simulation will require an orientation different from existing simulations, which deal largely with contemporary roles and currently visible problems.

OTHER SIMULATIONS

Although it is impossible within the space of this document to review all the simulations available in educational administration and related fields, several do merit brief description.

A simulation developed by Bolton (University of Washington) is intended to increase skill in various phases of the teacher selection process. The materials, available through UCEA, are designed for use in courses and workshops dealing with decision-making generally or with personnel selection more specifically.

This simulation includes a description of a hypothetical school situation (using slides, tape recordings, and a programmed text), a set of fictitious applicants (described by means of written documents and television films of interviews), and response devices that require decisions and allow analyses and feedback to be made.

The materials are designed within a decision-making framework so they can be used for studying and teaching the decision-making process. For example, all decisions require a consideration of a hypothetical situation and a choice among alternatives (the fictitious applicants). The choice is made on the basis of predicting the consequences of the various alternatives (by estimating how a person will be evaluated at the end of the first year of teaching) and then assigning a value to the consequences predicted (the explicit criteria for selection). The combination of the probable occurrence of an event and the value of the event provides a utility measure for an alternative, which in turn determines how the choice will be made (that is, the rank-ordering of the applicants).

Because the materials are designed in this decision-making framework, it is possible to compare the explicit criteria established by a person with the criteria implied by his choices. In addition, each phase of the process can be examined and discussed in relation to other decisions and the decision process.

Several simulations have been designed to train special education administrators. The Special Education Administration Task Simulation (SEATS) game, developed by Sage (Syracuse University 1969), helps students increase their skill in dealing with typical problems confronting special education administrators. Administrators of special education in state departments of education are trained using the State Education Agency Simulation Exercises (SEASE) created by Sage and Sontag (1970). Stevens and associates (University of Pittsburgh 1970) offer a simulator to train persons for leadership positions in public institutions for the mentally retarded. Stevens and his associates have also prepared background materials and in-basket problems in special education that are used in conjunction with the "Monroe City" simulation.

At the time of this writing, the Center for the Advanced Study of Educational Administration (CASEA) at the University of Oregon is developing two sets of simulated materials relevant to educational administration. One set, "Ernstspiel," deals with communications as the basis for task group development and presents selected problems of communication in a simulated environment. The other set, Multi-Unit Staff Training (MUST), focuses on a special case of differentiated staffing in the multi-unit school. It is designed to help school personnel move efficiently and effectively into a multi-unit pattern of organization.

Other simulations include the *Shady Acres Elementary Principalship* (McIntyre, University of Texas 1967), which consists of a single in-basket with a minimum of background information. The completion of the in-basket work requires approximately two hours. The *Midville High School Principalship* (Laughlin, Ohio State University) consists of background slides with taped commentary and a twelve-item in-basket. These materials are well suited for a brief workshop or single class, since the entire simulation exercise, including discussion, can be compressed into two to three hours. The *Community College Presidency* (Johnson, University of California at Los Angeles) simulates the work of a community college president. This simulation is unique in that the background materials may be provided to the student and deal with a mythical community college or may be actual data gathered through onsite visits to a selected community college.

Additional simulation materials are being developed under the auspices of UCEA. These include the simulation of:

- interorganizational problems between school districts and other agencies
- policy issues confronting school board members
- a school of the future
- systems problems (education and race)
- specialized organizational functions (planning)
- retrieval and organization of pertinent concepts, research findings, factual information, and theory for use with URBSIM

GAMES

The use of games for instructional purposes dates back at least as far as the *Kriegspiel* of Prussian military training. Although general management games have been used in the training of

business administrators for decades, their use in the preparation of school administrators is a fairly recent development. Model building for business management games is aided by the availability of well-developed operations research and economics models that can be simulated in the games. Such models do not yet exist in school administration.

Competition is a crucial element of games. The player's performance is precisely measured and compared either with an established norm or with the performance of other players in the same game. The value of competition in motivation of learning is so well recognized that it needs no elaboration here. However, there is reason to question whether the desire to win may often preempt the desire to learn and may thereby result in some goal displacement. Also, the desire to win may motivate the player to second-guess the author of the game, rather than to behave authentically.

The scoring of most games is absolute and therefore requires acceptance of the values assigned to the various options for each possible decision. In the real world of school administration, such absolute value judgments are uncommon. Moreover, in a game the only decisions available to the player are those that the designer anticipated and built into the scoring mechanism. Thus, in some instances creative decisions may be preempted by the design of the game and the scoring model.

Games seem to be most successful when the consequences of manipulating the variables are predictable. Indeed, this must be the case if the referee is to have control over the scoring in a fashion that permits determination of winners and losers. Like other forms of simulation, games raise familiar questions concerning authenticity of the design model, fidelity of the variables and their relationships, validity of values, premises determining victory, and reliability of the scoring. Losers have been known to rationalize poor performance by invoking these considerations. Gaming also requires considerable time and flexible physical arrangements.

On the other hand, it seems clear that games do force players to account for their performance, to examine the values by which their performance is judged, to live with the consequences of their decisions, to behave under extreme pressure, and to feel the emotions that accompany these circumstances. The relevance of all these consequences to school administration is self-evident.

PROFESSIONAL NEGOTIATIONS IN EDUCATION

"Professional Negotiations in Education" is one of the most widely used games in training educational administrators. Developed by Horvat (1968) under the auspices of UCEA, the game is designed to:

- illustrate the critically important facts in a negotiations situation
- provide insight into the particular area of executive behavior abstracted in the game
- focus attention on establishing policies or strategies and on long-range planning
- provide an opportunity for gaining facility in the use of decision-making tools

The game packet includes the following items:

- an opinion questionnaire to measure the participant's "degree of identification" with management or labor ideology
- background materials relating to the simulated school district in which the negotiation takes place
- a set of issues to be negotiated, specifying the official position of the board and the teachers organization on each issue (The game is available in three forms—short, intermediate, and long—for use in instructional formats of varying lengths. The three forms vary principally in the number of issues presented for negotiation.)
- guidelines for negotiators, a summary of the board's and teachers organization's positions on each issue (each presented confidentially to the respective bargaining team), and a definition of good-faith bargaining
- instructions for conducting the gaming session
- forms designed to provide systematic feedback on the negotiations for scoring the teams' performances
- an instructor's manual

The issues to be negotiated in the intermediate length game include:

1. recognition of the teachers organization with majority membership as the exclusive bargaining representative for all classroom teachers
2. checkoff system for payment of members' dues to the teachers organization
3. across-the-board annual pay increase for all teachers
4. payment of full cost of hospital and medical insurance by the district
5. duty-free lunch period for all teachers

6. preparation periods (five per week for secondary teachers and two per week for elementary teachers)
7. maximum class size of thirty in elementary schools and twenty-eight in secondary schools
8. extra compensation for extra duties
9. change from the training-incremental salary schedule to a standard ratio schedule
10. all transfers for tenured teachers on a voluntary basis
11. sabbatical leaves with 75 percent of regular pay for all teachers with seven or more years of service in the district

Participants are formed into small teams of variable size to represent the board and the teachers organization. Opposing teams are paired to form bargaining groups. One player may be assigned to fill the role of superintendent, who may then be briefed to function in any one of various roles: mediator, "friend of the court," fact-finder, and so forth. Any number of bargaining groups can be formed to accommodate all the participants. Persons with no experience in board membership will profit by playing the role of board negotiators. Similarly, persons without teaching experience can play the role of negotiators for the teachers organization.

Experience with the game reveals that nearly all the phenomena commonly associated with actual collective bargaining are manifested in the game play. These include caucusing, trade-offs, use of threats and rewards, and occasional impasses. All the emotions associated with real-life bargaining may find expression.

The game is scored through the use of three mechanisms:

- The "going rate" formula yields a score for each bargaining group on the basis of the variation of the final settlement from national "norms" on the same issues. A high "going rate" settlement could be interpreted as poor performance by the board team and good performance by the teacher team.
- The "dollar cost" formula yields a score for each bargaining group in terms of the total cost of the final agreement. A high "dollar cost" settlement could be interpreted as poor performance by the board and good performance by the teachers. However, since some of the demands require little or no expenditure of funds, this scoring mechanism is acknowledged to be limited in its utility.
- The "degree of satisfaction" score is derived from data fed back by each of the participants on a questionnaire that elicits their feelings with respect to such considerations as (1) satisfaction with the negotiations processes, (2) satisfaction with the realism of the simulation,

- (3) satisfaction with the substantive outcomes of the negotiations,
- (4) degree of residual disagreement, and (5) total satisfaction score yielded by the sum of the other four.

Because of the availability of three scoring mechanisms and the acknowledged inadequacy of each as a completely valid and reliable scoring mechanism, there may be no absolute determination of winners and losers. Moreover, it is quite possible for a team that has won a high "going rate" score to experience nevertheless a low sense of satisfaction with the bargaining. The multiple scoring mechanisms do tend to prompt more consideration and debate about the value premises that can be made in evaluating bargaining performances.

The instructor's manual provided with the game offers instruction for the application of Bales' (1950) interaction analysis model to analysis of the negotiation dialogue. It reveals the relationship between the pattern of discussion and the style of bargaining and, on a more general basis, the relationship between communication and conflict reduction.

BANG: A BARGAINING AND NEGOTIATION GAME

Lohman and Stow (University of Michigan 1971) have developed a bargaining game that differs from Horvat's game in several fundamental ways:

- It provides a multilateral rather than bilateral format for negotiation by including not only teacher and board teams but also student government and minority group teams.
- It deals with two issues (racial balance and tracking system) of general educational policy rather than with many issues of personnel policy.
- It provides for two negotiation cycles of three rounds each, with role play of group meetings between the rounds.
- The play is more controlled than that of the Horvat game because of more rigid rules of play, definition of roles, control of time and scoring, and more specific instruction in bargaining techniques.

One full day is required to play the game. Twelve participants are required—three for each of four bargaining teams. Background information on the school system and the community is presented. The two issues and the positions of each of the four interested constituencies are clearly stated.

The game is scored "qualitatively in terms of satisfaction with agreements reached, negotiation performance and how closely final agreements approximate original dispositions" (Lohman and Stow 1971, p. 4).

PRINCIPALSHIP GAMES

Two leadership games have been designed in the context of the Madison simulation.* These include the Elementary Principalship Games by Ohm and Wiggins (University of Oklahoma) and the Secondary Principalship Games by Ohm (University of Oklahoma). The rationale for the games is explained in the accompanying instructor's manuals. The games require the learners to respond to conflict situations. Guidelines are presented for providing feedback and for evaluating the student responses, which can be scored on the basis of the following criteria: (1) content analysis of information moves, (2) number of students choosing each information cycle, (3) ranges and numbers of times information is sought, (4) decision choices made, and (5) types of boundary-determining solutions offered by students. These games exemplify individual competition against normative standards rather than team competition against the performance of other teams.

SCHOOL POLITICS GAME

Under the auspices of Academic Games Associates, Becker has designed a school politics game that is still in the field-testing stage at the time of this writing. The game is constructed primarily to test the relevance of political science concepts to school administration. A minimum of eight or ten players is required, but as many as twenty can be accommodated. The game requires approximately three hours for the play and subsequent discussion. The players function as individuals, though ad hoc coalitions may be formed to advance certain interests. The players assume the roles of school board members, superintendent, president of the teachers

*All Madison-related materials are described more fully in UCEA's annual catalog—*Materials for Preparing Superintendents, Principals, and Other Educational Leaders*.

association, PTA president, and leaders of various community organizations, many of which hold conflicting expectations of the local school administration.

The play centers around controlling the issues that come before the board for official action and influencing the actions of the board and superintendent. This influence is accomplished through the expenditure of "resource units," which are allocated to the participants and subsequently expended or bartered for favors from other players. The issues include such matters as passing a bond issue, achieving racial balance in the schools, locating a new school building, obtaining a salary raise for teachers, instituting a program of sex education in the schools, and reelecting or replacing incumbent board members and superintendents.

Each player is given his own score sheet, which reveals the points he stands to gain or lose according to the action taken on each issue. The values vary both with respect to the issues and to the individual players. The scoring yields a single absolute score for each player, and winners are clearly determined. The rules of the game are fairly complicated to simulate the complexities and conflicting pressures that characterize the work of school boards, superintendents, and community groups interested in educational issues. The game stimulates intense competition and dramatizes the realities typical of school administration.

STUDENT-MADE GAMES

Andes reports that each student in educational administration at the University of West Virginia is required to develop two simulation games as a course requirement. This practice is noteworthy because of the learning that accompanies game construction. The designing of games requires understanding of the conceptual system on which the game is structured, selection of the variables to be introduced and their interrelationships, and anticipation of alternative solutions and the values to be assigned to them. Thus, designing of a game may be more instructive than playing it.

INDEPENDENT STUDY

Independent study is as old as learning itself. It constitutes an important component of all preparation programs for school administrators. The most notable advantages of independent study

are economy of resources and adaptability to the needs and convenience of the learner. The disadvantages derive largely from the learner's limitations in identifying his needs, locating appropriate self-instructional materials, and interpreting meaning in the absence of instructors and other students. Independent study is so common and so well understood that no extended discussion will be undertaken beyond brief descriptions of a few fairly unorthodox applications.

NATIONAL PROGRAM FOR EDUCATIONAL LEADERSHIP

The National Program for Educational Leadership (NPEL) is built almost entirely on unprogrammed independent study. Still in the developmental stage and unreported in the literature at the time of this writing, the program has headquarters at Ohio State University and the current coordinator is Ray Nystrand.

Interviews and a battery of tests are used to help students identify their learning needs in relation to their career goals. With the counsel of the program coordinator, participants select independent study tasks most appropriate for their needs and career goals. To date, these activities have included such diverse enterprises as reading, participation in the NTL program at Bethel, conferences with scholars of various specializations in education and related fields, participation with professors in field studies, attendance at American Management Association conferences, and visits to various educational agencies.

Each participant keeps a record of every activity, including a description, reason for selection, and evaluation of worth. The participants attend weekly seminars that stimulate reflection on activities and provide sharing of experiences with other participants. Group projects are also developed during the seminars. Heavy emphasis is placed on self-assessment and capitalization on the talents of participants through peer instruction. No courses or specific readings are required.

Evaluation of the learning experiences is qualitative and introspective. Participants are asked whether they feel comfortable with the knowledge gained or feel ready, with the knowledge accumulated, to assume responsibility for the chosen career objective.

INDIVIDUALIZED LEARNING SYSTEM FOR ADMINISTRATORS

New York University has developed an Individualized Learning System for Administrators (ILSA). Briefly, this program is an open learning system in which various elements are rationalized through an integration of field theory and systems theory. The experimental program is designed "to see if certain concepts of individualization of learning activities and of student initiative in the planning and operationalizing of learning behaviors could be worked."

Participation in the program is voluntary for both faculty and full-time students, either of whom may choose between the ILSA program and the more conventional instructional program. Students are encouraged to think carefully about their objectives and to approach content as a searcher or explorer with experienced guides (faculty) available to them. The main mechanism for achieving these skills is the student's individual plan for a year or semester, or even less, of his study. An orientation program acquaints him with the resources available in the university and the community. A conceptual-behavioral format is supplied for those who want it. When the plan is approved by the professor, the student proceeds to implement it in his own way and time.

The plan indicates specifically how the student's work will be evaluated for marking purposes. The student is free to attend or not attend sessions of regular courses. In either case, course outlines and bibliographies are available to him. He may join with other students or faculty for one-time discussions or seminars. Special learning experiences, such as simulations of collective bargaining, seminars on research methodology, or sensitivity training, may be arranged. Field trips to metropolitan schools and agencies may be taken. Students frequently accompany faculty members to professional meetings and join them in field projects or research.

At present, it is possible for a student to complete approximately half of his degree program through ILSA. Courses that are highly specialized or handled exclusively by one professor have not been included in the ILSA program. Evaluations of student work are undertaken by the team of participating professors. It is reported that the students who have participated in the program have developed a remarkable loyalty to it. A more detailed description of ILSA is available in the literature (Rose 1971).

PROGRAMMED SELF-INSTRUCTIONAL MATERIALS

Many programmed self-instructional materials in educational administration have been developed in recent years. These include a programmed textbook, *PPBS, Education and You*, by McGivney (Syracuse University); a programmed unit in school law, *Federal Relations and Education: A Programmed Text*, by McKeegan (Bucknell University) and Wynn (University of Pittsburgh); a programmed text on school accounting, *The Meaning of School Accounts*, by Lanham (University of Michigan); and programmed units on data-based educational planning systems developed by the Center for the Advanced Study of Educational Administration (University of Oregon).

Several UCEA self-instructional resource materials merit mention. A collection of more than two dozen "Best Lectures," dealing largely with administrative theory, are available on tape. Other taped series deal with innovations in preparatory programs and with various aspects of religion and the schools.

At the time of this writing, UCEA, in collaboration with the ERIC Clearinghouse on Educational Management and a number of cooperating universities and other agencies, is developing twenty-four cassettes dealing with topics of interest to school principals. These may consist of lecturettes, book reviews, research and development projects not yet in widespread practice, concept clarification with implications for practice, new developments in school administration, descriptions of advanced practices in schools, and issues affecting the leadership of principals.

The Ford Executive Leadership Training Program at the University of Massachusetts has developed a unique "resource bank" to serve the fellows in the program. In brief, the resource bank is a major storage and retrieval system for learning experiences (people, materials, and activities) that students may draw on. In a single convenient location, there is a systematic cataloging and cross-referencing of all courses, interning opportunities, books and other printed and filmed materials, field experiences, and professorial and practitioner resource personnel available to students in the program. It also includes the evaluative comments on these resources made by persons who have previously employed the resources. The resource bank should substantially facilitate the individualization and flexibility being sought in the Massachusetts leadership development program.

4

Problems and Prospects

This chapter calls attention to the major problems related to the development and use of unorthodox instructional methods and anticipates probable future developments.

CURRENT PROBLEMS

A number of problems are evident concerning the design and use of unorthodox instructional methods. Some of them are indigenous to all instructional methods—adequacy of the conceptual system on which content is selected and organized; relevance of the content to the real world; transferability of the learning tasks; logistical problems of cost, time, and obsolescence; and evaluation of instruction. These problems should be as familiar to the textbook author, discussion leader, and lecturer as they are to the case writer or designer of simulations.

Other problems are fairly unique to the unorthodox instructional methods. Whereas the lecturer may be unconcerned about feedback, the instructor using the in-basket technique may be quite concerned. Whereas the designer of an instructional game must consider the rationale for scoring performance and determining winners, the lecturer has no such concern. The human relations laboratory trainer cannot ignore the personal variables of the group, as the lecturer usually does.

ADEQUACY OF THE CONCEPTUAL SYSTEM

The conceptual system that guides the design of an instructional mode is central to all instruction. The conceptual system determines the purposes of the instruction, the substance to be taught, the organization of content, the nature of the instructional materials, the feedback, and the criteria for evaluation of performance. Put another way, the undergirding conceptual system answers the questions: What is important? What is real? What should be taught? What should be excluded? What questions must be asked of the learner? What performance standards are applied?

The underdevelopment of theory and conceptual systems in educational administration is well recognized. This lack of adequate theory has handicapped the development of design models in school administration. (In business management and public administration, on the other hand, the development of simulation and games is aided by the existence of more sophisticated economic and political science-based conceptual systems.)

Many of the early simulations, case studies, training laboratories, and other instructional strategies were developed at random, with little evident relationship to instructional purpose or conceptual systems. The UCEA Articulated Media Project (AMP) in the 1960s marked the first systematic effort to base learning on predesigned concepts and instructional objectives, rather than to create materials from available field situations and hope that some kind of learning might result. The concepts chosen by the AMP staff to guide the development of instructional strategies and materials were drawn from emerging insights into educational administration. This departure from past practice marked a notable effort to deal specifically with the theory-practice gap.

AMP also sought to achieve explicit relationships among concepts, materials, media, and purpose. Reality-oriented instructional materials and concepts were incorporated into the same package. Many, but not all, of the unorthodox instructional methods described in chapter 3 are characterized by undergirding theories of organization, decision-making, planning, communication, and other administrative functions.

SCOPE, FIDELITY, AND COMPLEXITY OF CONTENT

Another problem associated with unorthodox instructional methods concerns the scope, fidelity, and complexity of reality-oriented content. Although the content may be nonfiction, choices must be made regarding what can be included in and what must be omitted from the case study, simulation, role play, or game. The parameters imposed by time, space, and cost are finite, and selection is inescapable. Since no model is complete, what dimensions of reality are dictated by the model? What distortion is imposed by the perception of the case writer or simulation designer? Is the game or role play sufficiently authentic to prevent the learner from reaching conclusions or developing behavior that may be appropriate for the laboratory but inappropriate for the school?

Achieving fidelity with reality constitutes a design problem in creating analogous circumstances and variables. The variables that influence fidelity may include task variables, such as matrix variations; situational variables, such as time available for decision-making; and personality variables, such as character of opponent or team member. Strictly rational design models emphasize task and situational variables, in contrast to field theories that may include personal as well as task and situational variables. Danielian (1967) reports that the success of simulation rests more on the fidelity of reproduction of the appropriate values and assumptions than on the fidelity of the whole or parts of the actual field situation.

Beck and Monroe (1969) explain that the complexity factor includes consequences for the learner, response choices, social factors, and constraints of time or length of background materials. They point out that the complexity of the learner's analysis may be varied by manipulating the consequences of his decisions. The number of response choices permitted in a game or in programmed

instruction, for example, depends on the objectives. The encouragement of divergent thinking would require several choices among alternative responses, while skill development would restrict the number of correct alternative responses. Instructional methods that require or reward group consensus or group understanding—such as human relations or sensitivity training—complicate the decision-making process and the analysis of the consequences of behavior and require a more flexible matrix.

REPLICABILITY AND TRANSFERABILITY OF LEARNING

Replicability for other learners is important in any instructional mode, such as games, in which comparison of performances is essential, either for scoring to determine winners or for evaluating the instructional method. Replicability is also important in branched trials in programmed learning when feedback indicates that the response is inappropriate and that other options must be chosen to illuminate the consequences of previous decisions. Replicability imposes a tight matrix.

Real concerns may be raised regarding the transferability of learning from any kind of classroom instruction to situations in real life. Because reality-oriented instructional materials are usually so specific but also comprehensive, the learner may have difficulty sorting out all the variables that might dictate different responses in different circumstances. Games, for example, may be very effective in teaching gamesmanship, but the strategies of this gamesmanship must be very specific to the particular game if the referee is to have control over feedback and scoring. The manipulation of the variable constitutes the operation of the game and must be built into it.

The problem of transferability of learning is different in sensitivity training, for example. The kind of behavior that may be effective in a laboratory with others also intent on finding deeper understanding of self and others may be quite ineffective or even dysfunctional in another group situation in which the participants have much less interest in their interpersonal relations.

On the other hand, there may be greater transfer from reality-oriented instruction to real life than is possible with more abstract instructional methods, since the specificity and realism of the former become more recognizable in real situations. The student pilot

in a simulated cockpit can recognize the stall characteristics of an airplane more readily from the simulated flight experience than he could from reading about them.

Unfortunately, there is very little evidence available regarding the transferability of training in educational administration instructional methods to life settings. Such evidence as is available is not encouraging. Some studies have sought to measure the school administrators' behavior in the schools before and after laboratory training, as perceived by the teachers in their buildings. The data showed no significant changes (McIntyre 1967). However, Miles (1960) found significant change in the sensitivity and behavioral skills of principals who had participated in a human relations training laboratory, as compared with a matched control group who had not had this experience.

ARTICULATION WITH THE TOTAL PREPARATION PROGRAM

Most unorthodox instructional methods tend to be fairly specific with respect to instructional purpose and limited to some degree with respect to scope. At least at this juncture, few if any institutions find it feasible to build an entire preparation program for school administrators on the basis of any single instructional method. Consequently, the problem of articulating these instructional methods with the total preparation program arises. Some studies have shown that task-centered instruction has its greatest yield when used with other instructional methods (Danielian 1967 and House 1965).

Is the design model for the case study, simulation, laboratory training, or game compatible with the model on which the total instructional program is based? If not, how much incompatibility is acceptable? Incompatibility may arise regarding content, process, or content as opposed to process. A human relations training laboratory may, for example, reward behavior that is not compatible with behavior expected in conventional classroom instruction elsewhere in the preparation program.

The problem of sequence in the program also arises. Does reality-oriented instruction logically follow, precede, or accompany more conventional and more abstract instruction? The purposes of the instruction would seem to determine the answer to this question, but the format of the total instructional program may

not accommodate a logical sequence. The location of resident study in the total program, the knowledge level required by the student at his point of entry into the particular instructional mode, the length of time required for the instruction, and other logistical considerations may impinge on the articulation problem.

The accommodation of differences among students poses additional problems of articulation. For example, is experience in the human relations training laboratory required of all students or is it elective? If required of all, should it be of the same scope and intensity for all? If not required of all, will there be problems in adapting later instruction to students who may or may not have had the particular experience?

LOGISTICAL PROBLEMS

Unorthodox methods of instruction present some familiar logistical problems as well as some that are unique to reality-oriented methods.

The dimension of time takes on new significance. Independent study imposes very few time limitations on learner and instructor. Similarly, the lecturer or discussion leader can cut the lesson to fit the time available. However, on occasion, time must be controlled rigorously in games. And whereas some types of simulation are adaptable to short units of time, other types of simulation and laboratory training in human relations seem to require large contiguous blocks of uninterrupted time.

Simulation can provide in a short time experiences that could be gained only over a much longer period of time in real life. Within an hour or so, the case study permits portrayal of events occurring over a period of several years. Planning exercises and the consequences of the planning that might require years for consummation in life can be foreshortened to days or hours in a simulator, particularly in computer-assisted methods. Simulation thus permits practice in a relatively timeless environment. As in a football scrimmage, action can be slowed or stopped to permit the beginner to keep up with the action.

The costs of unorthodox instruction vary with the type. The costs of the instructional methods can be divided into three categories: (1) costs of development of the program and materials, including field testing; (2) costs of installation and operation of the

program in the training program environment; and (3) costs of personnel for effective program management. Individual study tends to be relatively inexpensive, whereas complex simulations, games, and some kinds of laboratory training tend to be rather expensive in comparison with conventional modes of instruction. All instructional materials are subject to depreciation arising from obsolescence, but because of their greater specificity, reality-oriented materials may be subject to more rapid obsolescence.

Obviously costs and benefits must be weighed in relation to each other. A simulator might provide experience with benefit approximately equal to that of the internship but with much less expenditure of the student's time than required by the internship. Simulation permits the professor to control the learning experience and to serve as a resource person without the travel and time necessary for him to exercise these functions in internship and other field experiences. Thus, reality in the classroom can be more easily and economically managed than can the classroom in reality. This comparison in no way constitutes a criticism of the internship, which has other obvious advantages over simulation.

Simulation can provide experience in a low-cost model of a high-cost environment. The social costs and benefits are hard to estimate. How much is saved, for example, if a student administrator bungles a play in a collective bargaining game or mishandles a student confrontation in a simulator and thereby learns to avoid such mistakes otherwise made on the first job? The relative costs and benefits must be considered despite the impossibility of precise measurement. Further discussion of benefits is undertaken later.

The availability of instructional staff capable of using unorthodox instructional methods effectively is another consideration. Skilled human relations laboratory trainers, for example, are rather rare and fairly expensive. Professors who lecture brilliantly may not be so gifted in attempting to supervise simulation-based instruction. It is axiomatic that reality-centered instruction, like any method of instruction, is no better than the skill of the instructor who uses it. Football scrimmages have not prevented inept coaches from having poor seasons.

EVALUATION

The problems of evaluating instructional methods are legion and by no means unique to unorthodox instructional methods.

However, many of the instructional methods discussed here presume to stimulate both cognitive and affective development, whereas orthodox instructional methods are usually directed toward cognitive development only; thus, the evaluation problem presents added difficulty.

The massive criterion problem has handicapped evaluation. The inadequacy of theory in educational administration results in quite imperfect criteria for evaluation. Partly for this reason, much of the evidence regarding the benefits acquired from unorthodox instructional methods is subjective and random. This evidence has been accumulated and is summarized below.

Most of this evidence is derived from the opinions of participants and instructors who have had experience with unorthodox methods. Most participants, both professors and learners, generally report an exhilaration resulting from their experiences with these methods of instruction, particularly the reality-oriented methods.

A UCEA survey of superintendents and professors of educational administration revealed that a much higher proportion of superintendents than of professors placed high value on cases and seminars; conversely, simulation and other role-playing devices were supported more frequently by professors than by practitioners. This finding might suggest that, while active student involvement in classes is viewed as important by those recently enrolled in preparatory programs, this group is less willing than are professors to have the central role in instruction transferred from the professor to the student (assuming that the professor plays a more central role in conducting seminars and case analyses than he does in simulation and role-playing techniques) (Culbertson and Farquhar 1971).

Weinberger (1965), who conducted a comprehensive survey of the use of simulated materials in the preparation of school administrators, also reported widespread satisfaction with results among both professors and students. How much of this satisfaction is euphoria generated by the "Hawthorne effect" of novel and dramatic methods of instruction and how much is attributable to genuine and sustained professional growth has not been determined.

Few rigorous studies have been made of the benefits of unorthodox instructional methods. As noted earlier, several efforts are under way, particularly by Cross and Hendrix (University of Minnesota), Immegart (University of Rochester), and Garove and

Handley (University of Pittsburgh), to measure the impact of simulation on the learnings of participants and particularly the degree to which these learnings are transferred to on-the-job behavior.

I will now consider some of the claims made for various unorthodox instructional methods and materials in light of the opinions of participants and instructors who have had experience with them.

Reality-oriented instructional methods and materials stimulate motivation and interest. Reality-oriented instruction activates the total involvement of the learner, who not only studies administration but experiences it. When competition or feedback is introduced, the learner's instincts for achievement are quickened. Virtually all the reports from persons who have used reality-oriented instruction in educational administration confirm this conclusion.

Reality-oriented instruction tends to stimulate more effective development than do conventional methods of instruction. There is no implication that this instruction is incapable of stimulating cognitive learning also. More conventional instructional methods—lecture, discussion, and reading, for example—are designed primarily to deepen the learner's knowledge, which of course must receive continued attention. However, the administrator is composed of both mind and heart; he is a creature of not only his knowledge but also his tastes, feelings, values, and emotions. The real world of administration is characterized by events and issues that are shaped by the social and emotional responses of both the administrator and others engaged in the work of schools. It may be that more administrators are lost because of what they feel, or fail to feel, than because of what they know, or fail to know. In reality-oriented instruction, the fears, satisfactions, anxieties, anger, fatigue, doubt, and frustration of self and others are usually experienced very poignantly.

Reality-centered instruction often permits a depth of introspection rarely provided otherwise. It holds up the mirror, so to speak. In simulation one can look at himself more self-consciously, more deliberately, more leisurely, more objectively, and with less personal threat or self-deception than is possible in an actual circumstance. Defensiveness and rationalization of behavior are usually less compelling than in a real-life situation. Students in reality-centered instruction often report that they can see themselves better, can deepen their perception of the effects of their

behavior on others, and can understand and accept themselves more realistically. Such learning is helpful, not only in relating to oneself more effectively, but also in relating in an administrative capacity with others.

Although the evidence is still quite fragmentary, several studies have suggested that reality-oriented instruction does yield some gain over alternative methods of instruction in the learner's understanding of self (Bolman 1970), attitudes toward his work (Sybouts 1968), and personality and behavior changes (Rogers 1967 and Mann and Mann 1959).

Reality-oriented instruction permits the learner to profit from mistakes. Just as the student pilot can fly the airplane simulator into a mountain without destroying himself and the plane, so the student administrator can make mistakes in simulated behavior without the disastrous consequences of such mistakes on the job. Simulated administrative behavior permits one to stop the action, to see the instant "replay," to evaluate the results, to start the action over again, to receive coaching in alternative responses, and to experiment with these alternative responses in a threat-free environment so as to gain skill with them. These luxuries are seldom possible in real life.

However, certain conditions must exist for the student to learn from mistakes. There must be feedback and evaluation so that the learner's behavior can be analyzed with respect to criteria of "success." Alternatives that include successful responses must be recognizable to the learner. Even then, the problems of transferring the successful behavior to real life may remain.

Fern (1961) studied the impact of simulations on the capacities of prospective educational administrators to perceive problems and find successful solutions to them. He demonstrated the capacity of simulation to improve problem-solving skills but concluded that considerable feedback is essential in the simulation if this gain is to be realized.

Reality-oriented instruction may permit the learner to perceive the consequences of his actions more clearly. Some methods of reality-centered instruction, particularly sequential in-baskets and some forms of games, require the learner to respond not only to a problem but also to the consequences of his solution to the problem. An operational game may begin with a case study to which a solution is required. This is only the beginning, because the

solution generates consequences that require further decisions, which have successive consequences, until one either reaches a dead end or works out a reasonable solution to the problem.

Other instructional methods terminate after the completion of a single task or cycle of tasks; for example, the case study asks for a solution, and that is the end of the experience. In reality, administrative problems are much more like programmed games than like case studies. When simulations or games are programmed and computerized, time can be foreshortened and the cycle of decisions and consequences can be drastically compressed in time, permitting the learner to experience in a few hours events that would require months or years in real life.

Some unorthodox methods of instruction facilitate the direct linkage of theory and practice. The relationship between theory and practice in the several methods of instruction has been noted earlier. This linkage is essential not only in the design of the instructional system and materials but also in the instruction itself. Reality-centered instruction permits the learner to proceed inductively from the problem to the concepts, theories, research evidence, models, or generalizations that should influence the solution, rather than starting with the abstractions and leaving their application to chance, as is more common in conventional instruction.

Reality-oriented instructional methods that require feedback permit the collection of normative data on administrative behavior from identical circumstances if the simulation is replicable. Normative data can be used for a number of purposes, such as: comparison of administrative behavior for student selection or evaluation; clinical examination of variance in behavior for remedial purposes; study of learning phenomena; and development of theories of administrative behavior. The first simulated school system was designed by the Development of Criteria of Success project for research purposes and contributed much to the understanding of administrative behavior.

If solutions to simulated problems or games are programmed, both the programmer and the learner are forced to analyze the relevant data, the variables, the entire range of alternative decisions, and the sequence of decision-making in a more heuristic way than is common in conventional instruction. When the capability of systems analysis is linked with computer-based gaming, the product

is the ultimate sophistication of rationality and speed. This discipline of systematic analysis of decision-making yields much higher levels of conceptualization, theorizing, and model building than is demanded by more conventional instruction. This method, then, is a good way to collect and synthesize information systematically. It yields a manageable way of breaking down a complicated system into subsystems and often suggests orderly ways to pool many skills or sets of information. It forces the participant to make explicit certain aspects of his behavior that previously were intuitive.

FUTURE TRENDS

Several predictions of future developments in unorthodox instructional methods and materials can be made rather confidently by extrapolating some contemporary trends.

Both the volume and the quality of instructional materials will continue to increase. The number of organizations, both profit and nonprofit, committed to the development of improved reality-oriented instructional materials is growing. The University Council for Educational Administration, the Center for the Advanced Study of Educational Administration, and the National Academy for School Executives are examples of such organizations. Instructors and students are recognizing the unique contributions that these instructional methods can make. As knowledge and experience with these materials are extended and as understanding of administrative science is enriched, the quality of the instructional materials will continue to improve.

Many instructional methods will increasingly require the active participation of students in dramatized roles in reality-oriented situations. If both cognitive and affective growth are to take place, the importance of total student involvement—intellectually, emotionally, and socially—in the learning exercise becomes more evident. The poignancy of the learning experience appears to be strengthened by such student participation.

New audiovisual media will be used with growing effectiveness and will permit greater dramatization of reality-oriented instruction. One may expect expanded use of videotapes and microteaching, both now common in teacher education but as yet underdeveloped in preparation programs for school administrators. Greater flexibility of use will become possible as the media are better developed.

Instructional materials will continue to show a growing sophistication. For example, complex case materials will be developed with multiple roles and multiple components included. Models and theory will be applied increasingly to the design, use, and evaluation of the instructional methods and materials, thereby contributing not only to the refinement of the materials but also to our knowledge of administration.

More emphasis will probably be placed on performance objectives, and instructional materials will be increasingly oriented in that direction. Similarly, one might expect greater emphasis on administrative processes.

It is possible that more extensive use will be made of independent study in the future. This trend may be dictated in part by cost considerations and be facilitated by the audiovisual media's capability of supporting independent study better than conventional instructional communication. Programmed learning's capability of accommodating individual differences and the computer's capability of managing the interface between the student and the instructional materials will combine to increase the efficacy and the efficiency of independent study.

Finally, it is likely that much more emphasis will be placed on futures orientation in instructional methods and materials. The press in this direction is already evident, and the technology for supporting it is developing rapidly.

Bibliography

- Alexander, Lawrence T., and others. "A Demonstration of the Use of Simulation in the Training of School Administrators." In *A Report of the Office of Research and Evaluation*. New York: Division of Teacher Education, City University of New York, 1967.
- American Association of School Administrators. *Professional Administrators for America's Schools*. Thirty-eighth Yearbook. Washington, D.C.: 1960.
- . *The Education of a School Superintendent*. Washington, D.C.: 1963.
- . *The Professional Preparation of Superintendents of Schools*. Washington, D.C.: 1964.
- American Management Association. *Simulation and Gaming: A Symposium*. New York: 1961.
- . *Case Studies in Computer-Based Management*. New York: 1963.
- Anderson, Lee F., and others. *A Comparison of Simulation, Case Studies, and Problem Papers in Teaching Decision Making*. Evanston, Illinois: Northwestern University, 1964.
- Bailey, Stephen K., ed. *Educational Administration: International Perspectives*. Chicago: Rand McNally & Co., 1971, chapters 11, 12.
- Bales, R. F. *Interaction Process Analysis*. Cambridge, Massachusetts: Addison-Wesley Publishing Co., 1950.
- Beck, Isabel, and Monroe, Bruce. "Some Dimensions of Simulation." *Educational Technology*, 9 (October 1969), 45-49.

- Benne, Kenneth D. "History of the T-Group in the Laboratory Setting." In *T-Group Theory and Laboratory Methods*, edited by Leland F. Bradford and others. New York: John Wiley & Sons, 1964, 80-136.
- Bessent, E. W., ed. *Designs for Inservice Education*. Austin, Texas: The University of Texas, 1967, 14-26.
- Birnbaum, Max. "Sense and Nonsense about Sensitivity Training." *Saturday Review*, 52 (15 November 1969), 82-83f.
- Blatner, Howard A. *Psychodrama: Role-Playing and Action Methods, Theory and Practice*. Thetford, England: 1970.
- Bolman, Lee. "Laboratory versus Lecture in Training Executives." *Journal of Applied Behavioral Science*, 6 (July-September 1970), 323-335.
- Bolton, Dale L., ed. *The Use of Simulation in Educational Administration*. Columbus, Ohio: Charles E. Merrill, 1970.
- Bonini, Charles P. *Simulation of Information and Decision Systems in the Firm*. Englewood Cliffs, New Jersey: Prentice-Hall, 1963.
- Boocock, Sarane S. "An Experimental Study of the Learning Effects of Two Games with Simulated Environments." *The American Behavioral Scientist*, 10 (October 1966), 8-18.
- Boocock, Sarane S., and Schild, E. O., eds. *Simulation Games in Learning*. Beverly Hills, California: Sage Publications, 1968.
- Bradford, Leland P.; Gibb, Jack R.; and Benne, Kenneth D., eds. *T-Group Theory and Laboratory Methods*. New York: John Wiley & Sons, 1964.
- Broadbent, Frank W. "Simulating Problems of Beginning Teachers." *The Elementary School Journal*, 68 (October 1967), 39-43.
- Burton, Arthur, ed. *Encounter: The Theory and Practice of Encounter Groups*. San Francisco: Jossey-Bass, 1968.
- Campbell, Roald F., and Gregg, Russell T. *Administrative Behavior in Education*. New York: Harper & Row, 1957.
- Carlson, Elliott. *Learning Through Games*. Washington, D.C.: Public Affairs Press, 1968.
- Childress, Jack R. "Instructional Methods for Graduate Programs for School Administrators." Mimeographed. Evanston, Illinois: National Conference of Professors of Educational Administration, 1953.
- Chorafas, Dimitris N. *Systems and Simulation*. New York: Academic Press, 1965.
- Cohen, Kalman J., and others. *The Carnegie Tech Management Game: An Experiment in Business Education*. Homewood, Illinois: Richard D. Irwin, 1964.

- Cragin, Stuart W., and others. *Simulation: Management's Laboratory*. Groton, Connecticut: Simulation Associates, 1959.
- Crawford, Meredith P. "Dimensions of Simulation." *American Psychologist*, 21 (1966), 788-796.
- Crawshaw, Ralph. "How Sensitive Is Sensitivity Training?" *American Journal of Psychiatry*, 126 (December 1969), 869-873.
- Croft, John C. "Skillful Personal Encounter and the Development of the Educational Administrator." Unpublished paper, n.d., 1-16.
- Cross, W. Ray. "Relationships Between Elementary School Principals' In-Basket Performance and Their On-the-Job Behavior." *Journal of Educational Research*, 63 (September 1969), 26-30.
- Culbertson, Jack A., and Coffield, William. *Simulation in Administrative Training*. Columbus, Ohio: University Council for Educational Administration, 1960.
- Culbertson, Jack A., and Farquhar, Robin H. "Preparing Educational Leaders: Methods Employed in Administrative Preparation." *UCEA Newsletter*, (July 1971), 11.
- Culbertson, Jack A., and Hencley, Stephen P., eds. *Preparing Administrators: New Perspectives*. Columbus, Ohio: University Council for Educational Administration, 1962.
- Culbertson, Jack A.; Jacobson, Paul B.; and Reller, Theodore L. *Administrative Relationships: A Casebook*. Englewood Cliffs, New Jersey: Prentice-Hall, 1960.
- Culbertson, Jack A.; Farquhar, Robin H.; Gaynor, Alan K.; and Shibles, Mark R. *Preparing Educational Leaders for the Seventies*. Columbus, Ohio: University Council for Educational Administration, 1969.
- Dale, Alfred G., and others. *Simulation Training for Small Business Executive Development*. Austin, Texas: University of Texas, 1963.
- Danielian, Jack. "Live Simulation of Affect-laden Cultural Cognition." *The Journal of Conflict Resolution*, 11 (September 1967), 312-324.
- Egan, Gerard. *Encounter: Group Process for Interpersonal Growth*. Belmont, California: Brooks-Cole Publishing Co., 1970.
- Farquhar, Robin H. *The Humanities in Preparing Educational Administrators*. Eugene, Oregon: ERIC Clearinghouse on Educational Administration, University of Oregon, 1970.
- Fattu, Nicholas, and Elam, Stanley, eds. *Simulation Models for Education*. Bloomington, Indiana: Phi Delta Kappa, 1965.

- Fern, William H. "Aspects of Problem Perception and Problem Solving in Educational Administration." Unpublished doctoral dissertation, University of Chicago, 1961.
- Foreman, Milton E. "T-Groups: Their Implications for Counselor Supervision and Preparation." *Counselor Education and Supervision*, 7 (Fall 1967), 48-53.
- Frederiksen, Norman. "Proficiency Tests for Training Evaluation." In *Training Research and Education*, edited by Robert Glaser. Pittsburgh: University of Pittsburgh, 1962.
- Frederiksen, Norman, and others. "The In-Basket Test." *Psychological Monographs*, 71 (whole N. 438), 1957.
- Goldhammer, Keith, and Farner, Frank. *The Jackson County Story*. Eugene, Oregon: The Center for the Advanced Study of Educational Administration, University of Oregon, 1964.
- Goldhammer, Keith, and Pellegrin, Roland J. *Jackson County Revisited*. Eugene, Oregon: The Center for the Advanced Study of Educational Administration, University of Oregon, 1968.
- Golembiewski, Robert T., and Blumberg, Arthur. *Sensitivity Training and the Laboratory Approach*. Itasca, Illinois: F. E. Peacock Publishing Co., 1971.
- Greening, Thomas C. "Sensitivity Training: Cult or Contribution." *Personnel*, 41 (May-June 1964), 18-25.
- Greenlaw, P. S.; Herron, L. W.; and Rawson, R. H. *Business Simulation in Industrial and University Education*. Englewood Cliffs, New Jersey: Prentice-Hall, 1962.
- Griffiths, Daniel E. *Human Relations in School Administration*. New York: Appleton-Century-Crofts, 1956.
- . "The Case Method of Teaching Educational Administration: A Re-appraisal, 1963." *Journal of Educational Administration*, 1 (October 1963), 81.
- Guetzkow, Harold Steere, ed. *Simulation in Social Science: Readings*. Englewood Cliffs, New Jersey: Prentice-Hall, 1962.
- Guetzkow, Harold Steere, and others. *Simulation in International Relations: Developments for Research and Teaching*. Englewood Cliffs, New Jersey: Prentice-Hall, 1963.
- Haldi, John, and Wagner, Harvey M. *Simulated Economic Models: A Laboratory Guide to Economic Principles of Market Behavior*. Homewood, Illinois: Richard D. Irwin, 1963.

- Hemphill, John K.; Griffiths, Daniel E.; and Frederiksen, Norman. *Administrative Performance and Personality: A Study of the Principal in a Simulated Elementary School*. New York: Teachers College Press, Teachers College, Columbia University, 1962.
- Hodgson, Anthony M., and Dill, William R. "Programmed Case: The Misfired Missive." *Harvard Business Review*, 48, 5(September-October 1970), 140-148; and 48, 6(November-December 1970), 105-110.
- Hoggatt, Austin C., and Balderston, Frederick E. *Symposium on Simulation Models: Methodology and Application to the Behavioral Sciences*. Cincinnati: Southwestern Publishing Company, 1963.
- Horvat, John. *Professional Negotiations in Education*. Columbus, Ohio: Charles E. Merrill, 1968.
- Horvat, John; Bridges, Edwin; and Sroufe, Gerald. *Case Studies in Educational Administration: An Information Storage and Retrieval System*. Columbus, Ohio: University Council for Educational Administration, n. d.
- House, Robert J. "Managerial Reactions to Two Methods of Management Training." *Personal Psychology*, 18 (Autumn 1965), 311-319.
- . "Leadership Training: Some Dysfunctional Consequences." *Administrative Science Quarterly*, 12 (March 1968), 556-571.
- Hulburd, David. *This Happened in Pasadena*. New York: Macmillan Co., 1951.
- Human Development Institute. *Small Group Course in Interpersonal Relations*. Atlanta: Human Development Institute, 1968.
- Immegart, Glenn L. *Guides for the Preparation of Instructional Case Materials in Educational Administration*. Columbus, Ohio: University Council for Educational Administration, 1967.
- Kibbee, Joel M., and others. *Management Games: A New Technique for Executive Development*. New York: Reinhold Publishing Corporation, 1961.
- Klein, Alan F. *Role Playing in Leadership Training and Group Problem Solving*. New York: Association Press, 1956.
- . *How to Use Role Playing Effectively*. New York: Association Press, 1959.
- Kothera, John R. "A Criterion and Set of Reality Based Problems for Simulation in Special Education Administration." Doctoral dissertation, University of Kansas, 1968.
- Kuehn, John L., and Crinella, Francis M. "Sensitivity Training: Interpersonal 'Overkill' and Other Problems." *American Journal of Psychiatry*, 126 (December 1969), 840-845.

- Lakin, Martin. "Some Ethical Issues in Sensitivity Training." *American Psychologist*, 24 (October 1969), 923-929.
- Laughery, K. R., and Gregg, L. W. "Simulation of Human Problem-Solving Behavior." *Psychometrika*, 27 (1962), 265-282.
- Lippitt, Ronald; Bradford, Leland P.; and Benne, Kenneth D. "Sociodramatic Clarification of Leader and Group Roles as a Starting Point for Effective Group Functioning." *Sociatry*, 1 (March 1947), 82-91.
- Lohman, Anita A., and Stow, Debra. "BANG: A Bargaining and Negotiation Game." Mimeographed. Ann Arbor, Michigan: School of Education, University of Michigan, 1971.
- Mann, John H., and Mann, Carola H. "The Importance of Group Task in Producing Group-Member Personality and Behavior Change." *Human Relations*, 12 (1959), 75-80.
- McGuire, Christine H., and Babbott, David. "Simulation Technique in the Measurement of Problem-Solving Skills." *Journal of Educational Measurement*, 4 (Spring 1967), 1-10.
- McIntyre, Kenneth E. "The Laboratory Approach." In *Designs for Inservice Education*, edited by E. W. Bessent. Austin, Texas: University of Texas, 1967, chapter 2.
- McKenny, James L. *Simulation Gaming for Management Development*. Cambridge, Massachusetts: Graduate School of Business Administration, Harvard University, 1967.
- Miles, Matthew. "Human Relations Training: Processes and Outcomes." *Journal of Counseling Psychology*, 7, 4 (1960), 301-306.
- Mitroff, Ian. "Fundamental Issues in the Simulation of Human Behavior: A Case in the Strategy of Behavioral Science." *Management Science*, 15 (August 1969), B635-B649.
- Monroe, Bruce. *Some Dimensions of Simulation*. Seal Beach, California: Instructional Systems Group, 1969.
- Moreno, J. L. *The First Psychodramatic Family*. Beacon, New York: Beacon House, 1964.
- . "The Viennese Origins of the Encounter Movement, Paving the Way for Existentialism, Group Psychotherapy and Psychodrama." *Group Psychotherapy*, 22 (1969), 7-16.
- National Conference of Professors of Educational Administration. *Educational Leaders: Their Function and Preparation*. New York: Teachers College Press, Teachers College, Columbia University, 1948.

- Newell, Allan, and Simon, Herbert A. "The Simulation of Human Thought." In *Current Trends in Psychological Theory*. Pittsburgh: University of Pittsburgh Press, 1961.
- Noel, Robert C. "The POLIS Laboratory." *The American Behavioral Scientist*, 12 (July-August 1969), 31-35.
- O'Banion, Terry, and O'Connell, April. *The Shared Journey: An Introduction to Encounter*. Englewood Cliffs, New Jersey: Prentice-Hall, 1970.
- Ohm, Robert E. "Gamed Instructional Simulation: An Exploratory Model." *Educational Administration Quarterly*, 2 (Spring 1966), 110-122.
- O'Neill, William F. "Existentialism and Education for Moral Choice." *Phi Delta Kappan*, 46 (October 1964), 48-53.
- Ortman, Harriet L. "How Psychodrama Fosters Creativity." *Group Psychotherapy*, 19 (September-December 1969), 201-213.
- Otto, Herbert. *Group Methods to Actualize Human Potential: A Handbook*. Beverly Hills, California: The Holistic Press, 1970.
- Otto, Herbert, and Mann, John, eds. *Ways of Growth: Approaches to Expanding Awareness*. New York: Grossman Publishers, 1968.
- Pool, Ithiel de Sola, and Abelson, Robert. "The Simulmatics Project." *Public Opinion Quarterly*, 25 (1961), 167-183.
- Raksis, Ted J. "Sensitivity Training: Fad, Fraud, or New Frontier?" *Today's Health*, 48 (January 1970), 20-25 f.
- Rogers, Carl R. "Process of the Basic Encounter Group." In *Challenges of Humanistic Psychology*, edited by James F. T. Bugental. New York: McGraw-Hill, 1967, 261-276.
- Rogers, Virginia M. "Simulation in Preparing Social Studies Teachers." *Social Education*, 34 (March 1970), 337-340.
- Rogers, Virginia M., and Kysilka, Marcella. "Simulation Games—What and Why." *The Instructor*, 34 (March 1970), 94-95.
- Rose, Brian. "T-Group?" *The Times Educational Supplement* (London), 2618 (23 July 1965), 155.
- Rose, Gale W. "ILSA—An Individualized Learning System for Administrators." *UCEA Newsletter*, 12 (July 1971), 17-20.
- Sackman, H. *Computers, Systems Science and Evolving Society*. New York: John Wiley & Sons, 1967.
- Sage, Daniel D. *SEATS GAME Instructor's Manual*. Syracuse, New York: Division of Special Education and Rehabilitation, Syracuse University, 1969.

- Sage, Daniel D., and Sontag, Edward W. *The Development and Evaluation of Reality-Based Simulation Materials for the Training of Special Education Administrators in State Departments of Education*. Washington, D.C.: U.S. Office of Education, 1970.
- Sargent, Cyril G., and Belisle, Eugene L. *Educational Administration: Cases and Concepts*. Boston: Houghton Mifflin, 1955.
- Schein, Edgar H., and Bennis, Walter G. *Personal and Organizational Change through Group Method: The Laboratory Approach*. New York: John Wiley & Sons, 1965.
- Shostrom, Everett L. "Group Therapy: Let the Buyer Beware." *Psychology Today*, 2 (May 1969), 36-40.
- Shubik, Mártin, ed. *Game Theory and Related Approaches to Social Behavior: Selections*. New York: John Wiley & Sons, 1964.
- "Simulated Games and Learning Behavior." *American Behavioral Scientist*, (October 1966; November 1966), entire issues.
- Siroka, Robert W.; Siroka, Ellen K.; and Schloss, Gilbert A. *Sensitivity Training and Group Encounter: An Introduction*. New York: Grosset and Dunlap, 1971.
- Skies, Walter W. "A Study of Some Effects of Human Relations Training Laboratory." *Dissertation Abstracts*, 26 (August 1965), 1200.
- Southern States Cooperative Program in Educational Administration. *Better Teaching in School Administration*. Nashville: George Peabody College for Teachers, 1955.
- Stephenson, Harriet. "Evaluating Human Relations Training." *Personnel Administration*, 29 (July-August 1966), 34-39.
- Stevens, Godfrey D., and O'Neil, Lawrence P. "An Application of Simulation Training for Special Education Administrators Utilizing Modifications of Prepared Materials." In *Proceedings of the National Conference's Common and Specialized Learnings, Competencies and Experiences for Special Education Administrators*. Austin, Texas: National Consortium on Special Education, 1969.
- Stevens, Godfrey D.; Garove, William E.; Handley, Edward E.; and Woods, E. Hugh. *The Development of an In-Service Program for Leadership Personnel in Residential Schools for the Mentally Retarded*. Pittsburgh: Department of Special Education and Rehabilitation, University of Pittsburgh, 1970.
- Sybouts, Ward. "Simulating Leadership in Vocational Education." *The National Association of Secondary School Principals Bulletin*, 52 (February 1968), 114-119.

- System Development Corporation. "Grooming Tomorrow's Managers." *SDC Magazine*, 13 (January 1970), 3-15.
- Thomas, Clayton J., and Deemer, Walter L., Jr. "The Role of Operational Gaming in Operations Research." *Operations Research*, 5 (1957), 1-27.
- Thomas, Michael P., Jr. *Strategies in the Preparation of School Administrators*. Lincoln, Nebraska: National Conference of Professors of Educational Administration, Teachers College, University of Nebraska, 1964.
- Tocher, K. *The Art of Simulation*. Princeton, New Jersey: Van Nostrand, 1964.
- Travers, Robert M. W. *Reinforcement in Classroom Learning. Part II: Studies of Reinforcement in Simulated Classroom Situations. Part III: Identification of Reinforcers of Human Behavior*. Salt Lake City: Bureau of Educational Research, University of Utah, 1964.
- Trusty, Francis, and others. "Preparation for the Administrative Intern: Sensitivity Training." *Phi Delta Kappan*, 47 (April 1966), 454-455.
- Twelker, Paul A. *A Basic Reference Shelf on Simulation and Gaming. A Series One Paper*. Stanford, California: ERIC Clearinghouse on Educational Media and Technology, Stanford University, 1970.
- Twelker, Paul A., ed. *Instructional Simulation Systems: An Annotated Bibliography*. Monmouth, Oregon: Teaching Research Division, Oregon State System of Higher Education, 1969.
- University Council for Educational Administration. *Simulation in Administrative Training*. Columbus, Ohio: 1960.
- . "Urban Simulation Project Advances on Many Fronts." *UCEA Newsletter*, 12 (April 1971), 3-6.
- Weinberger, Morris V. *The Use of Simulation in the Teaching of School Administration*. Unpublished doctoral dissertation, Teachers College, Columbia University, 1965.
- Wynn, Richard. "Simulation: Terrible Reality in the Preparation of School Administrators." *Phi Delta Kappan*, 46 (December 1964), 170-173.
- Zoll, Allen A. III. *Dynamic Management Education*. 2d ed. Reading, Massachusetts: Addison-Wesley Publishing Co., 1969.
- Zuckerman, David W., and Horn, Robert E. *The Guide to Simulation Games for Education and Training*. Cambridge, Massachusetts: Information Resources, 1970.

Acknowledgments

The writer is indebted to the staff of the University Council for Educational Administration, particularly Jack Culbertson, Robin Farquhar, and Al Gaynor, for sharing their insights into the topic as well as their knowledge of the persons and institutions engaged in the advancement of innovative instruction. Amba Prasad was of great assistance in searching the literature for relevant material. Appreciation is due to the many professors who responded to the request for materials describing the development of instructional methods and materials on their campuses. Many of their names appear in the body of the monograph and in the bibliography. The author's wife, Joanne Wynn, was, as always, a very helpful editor.